THE DEFICIT HYPOTHESIS: A STUDY OF SOME PSYCHOLOGICAL VARIABLES ASSOCIATED WITH SOCIAL CLASS DIFFERENCES IN SPEECH

NANCY FALCHIKOV

Ph.D.

UNIVERSITY OF EDINBURGH

1982

EX BIBL. UNIV. EDINBURGEN.

ACKNOWLEDGEMENTS

I wish to express my thanks to the following:

Dr Alison Elliot, Department of Psychology, University of Edinburgh, for generous help and encouragement throughout the research period.

Dr Boris Semeonoff, Department of Psychology, University of Edinburgh, for interest and advice, particularly in the early stages.

Dr Peter Fisk, Department of Statistics, University of Edinburgh, for help with the regression analyses.

Mr Robin Henderson and Dr T Renshaw, both of the Department of Mathematics, Napier College for advice concerning and interest in the statistics employed.

Teachers and students of Boroughmuir High School and James Gillespie's High School, Edinburgh.

Marlyn Clark for typing the manuscript.

This study investigates the deficit hypothesis in a number of areas where it might point to working class difficulties. Pronoun usage in recordings of conversations of triads of working class and middle class Edinburgh boys is analysed and compared with similar studies. The results conflict with Bernstein's influential 1962 study, and suggest that familiarity with the topic of conversation and with conversational partners has more effect than social class on use of many pronouns. A similar finding resulted from an investigation into the appropriacy of use of pronouns. Social class appears to be significant only for overall pronoun use and use of the personal pronoun "I", and some interaction of the class and affiliation variables is found to influence conversation structure and the use and functions of language. No indication of working class language deficit is encountered. Personal and social development in a subsample of boys is investigated by means of the Rogers' Personality Inventory, and no significant differences between the two social class groups are found. Similarly, no class differences are found in time references in the conversations. However, in an events test a marked relationship between class and time perspective is found, with middle class boys displaying a longer future time span than their working class peers. The results of the various analyses and tests are discussed, and a further investigation into the complexities attaching to the effects of the affiliation, topic and class variables recommended.

TABLE OF CONTENTS

1. INTRODUCTION

> "I used to think I was poor. Then they told me I wasn't poor, but needy. Then they told me it was self-defeating to think of myself as needy. I was deprived. Then they told me deprived was a bad image, I was underpriveleged. Then they told me underpriveleged was overused. I was disadvantaged. I still haven't got a dime, but I have a great vocabulary". (Feiffer cartoon).

It is widely believed and frequently claimed that certain groups of school students are not functioning academically as well as they might (e.g. Cashdan & Esland, 1972). This educational problem, or "problem of educability" (Bernstein, 1970, p.216), is seen by some (e.g. Holt, 1969) as being a widespread problem where all except a handful of children fail to develop their full potential. Most often the focus is on the underachievement of children supposedly at a particular "disadvantage" with regard to the educational system, namely those children who come from working class families. The more restricted case of working class underachievement and its possible causes forms the focus of the present study.

Both the existence and possible nature of any "disadvantage" are controversial topics, but the (assumed) disadvantage appears to be characterised by features that vary from the tangible and measureable (poor material circumstances) to the conceptual (Bernstein's, (1970), "new educational categories" of "cultural deprivation", "linguistic deprivation", "cognitive deficit" and "social disadvantage").

1.1 The Nature of Social Class

Before progressing to a discussion of the nature of any class related disadvantage, a brief note on the nature of social class must be made. Social stratification may take one

of several forms, and includes categories such as caste, estate, social class and status groups, (Bottomore, 1965). Townsend (1979) proposes a variety of operational classifications of social class as this is used in Britain which are reproduced below.

1. Individual unprompted self-assignation
2. Individual prompted self-assignation
3. The Registrar General's five-fold occupational classification
4. A sociological eight-fold classification
5. The combined occupational class of husband and wife
6. The combined occupational class of husband, wife, husband's father and wife's father.

The widely used Registrar General's classification dating back to the Census of 1911, grades occupations according to their social position. This classification has been found to correlate significantly with many other measures such as housing tenure and amenities, type of education, mortality and morbidity, (Townsend, 1979). Townsend also suggests that, whilst the Registrar General's classification has been criticized on the grounds that it does not distinguish within classes II, III and IV, subjective evaluation of social class involves rather fewer categories. Furthermore, the working and middle classes tend to have different images of the class system, the working class often adopting what Townsend calls a two valued power model (rich vs. workers), and the middle class a three valued status model (upper, middle and lower).

Since the present study aims to compare only extremes of class it will use the Registrar General's occupational classification omitting the large debatable class III. (Details of the exact method of classification are to be found in Chapter 2).

The hierarchical ordering or ranking of social groups in a society, being a human construct (with inequality of incomes as an important element) is, in theory at least, subject to historical change. It has been argued (e.g. Klein, 1965, referred to in Goldthorpe et al, 1969) that social mobility together with general improvement in standards of living, has led to such a change, namely to the "embourgeoisment" of the working class who now tend to adopt middle class standards and patterns of life. Goldthorpe et al (1969), set out the argument earlier elaborated by Marcuse (1964), that, within the new class of workers, the fundamental needs of people as human beings remain unfulfilled or frustrated in that the greater income they now receive is taken up in the satisfaction of "false" needs imposed on the worker by "prevailing institutions and interests" (Goldthorpe et al, p.16). Hence, reasons Marcuse (1964), "through such false needs, the worker's alienated condition is made manifest." The empirical test of the embourgeoisement thesis carried out by Goldthorpe et al, furthermore, provides evidence to suggest that there appear to be certain quite distinctive features of middle class social life that are not displayed by members of the new working class.

Of necessity, some of the studies to which we shall refer were carried out in the U.S.A. where is found a different system of social stratification from that in Britain. It is claimed (Bottomore, 1965) that, in America, disparities of wealth have not been as extreme as in Europe, and that there is a higher rate of social mobility than in Britain. Furthermore, black citizens form a "distinctive American proletariat" (p.45) who are in receipt of the lowest incomes and have the lowest prestige in the country. Bottomore argues that immigration has worked in such a way as to raise the social position of "ordinary American workers" since many groups of immigrants enter the lowest levels of the occupation hierarchy. Thus, in America, any differences due to social class are likely to interact with differences due to race.

1.2 Material disadvantage of the working class

Cohen (1968) reports that amongst poor Americans there is a higher rate of chronic ailments than amongst rich Americans. One in five slum dwellers are infected with T.B. This, Cohen argues, is linked to both the cheap food and unhealthy environments of the American slum dweller. In Wedge and Prosser's (1973) study of children in Britain, where family composition, taken in conjunction with low income and poor housing was considered important in defining the category of "social disadvantage", it was found that whilst one in twenty five of the children classed as "socially disadvantaged", were from a middle class background, the overwhelming majority were from the working class.(1)

Disadvantage can occur before birth and persist until death. The mother-to-be who is disadvantaged, report Wedge and Prosser, is more likely to have had several previous pregnancies, to be young and to be a heavy smoker than a non-disadvantaged woman. Furthermore, the disadvantaged are less likely to seek medical care and help. Gough (1970 cited in Field 1974) reports an incidence of infant death in social classes IV and V more than one and a half times that in classes I and II.

The "inequality gap" (Field, 1974) is also present (and widening) in the fields of education, income, work and unemployment, health and housing. The more recent DHSS report, "Inequalitites in Health" (Black et al, 1980) notes the continuance of "glaring inequalities" in these same areas, and introduces an additional category of "cultural

(1) Incidentally, whilst 11% of British 11 year olds live in Scotland, 19% of these children fell into the category of "disadvantaged".

differences". The report claims that working class children are less able to acquire linguistic, cognitive and communicative skills necessary for the securing of higher paid (and healthier) jobs, largely because of "the fit which exists between middle class norms of socialisation and the dominant structure of the educational system" (quoted by Coote, 1980, p.9).

1.3 Educational underachievement of the working class

The Newsom Report (1963) notes that 79% of secondary modern schools in "slum and problem areas" are materially "grossly inadequate". Staff turnover is high and children are characterised by depressed reading scores. Holman (1978) reports that the lowest social class contains members who are most likely to be at the bottom of educational ratings. There are proportionately fewer working class children at day nurseries and nursery schools than middle class children. Working class children are less likely to be achieving well at 7 years of age than middle class children (Davie, Butler & Goldstein, 1972), and after the compulsory school leaving age, 32% of children of manual workers compared with 60% of children of others stay on at school. Holman quotes Halsey as stating that similar differences are found when intelligence is held constant. Furthermore, though more students from the lowest social class (class V) now go to university than was the case 50 years ago, other social classes have gained more in this respect. Rutter et al (1979) found that even after controlling for IQ, parental occupation is associated with attainment.

Why, then, do young people from the working class underachieve? A number of sharply differing explanations have been offered to account for such findings. Some of these explanations, ranging from Jensen's genetic explanation to more widely held environmental explanations, are reviewed by

Feshbach and Adelman (1974). Thomson (1977), exploring one "environmental" explanation, specifically links social class labelling with what he terms "misinterpretation of Bernstein's theory of language codes". (We shall return to this theory in 1.5.1). He argues that the terms "elaborated" and "restricted" codes have often been used by many teachers as labels to identify a socially determined linguistic advantage and disadvantage of pupils, and that the consequences of such misinterpretation on the part of teachers is likely to become a self fulfilling prophecy affecting the performance of students at school. He describes an experiment in which students of linguistics familiar with the theories of both Bernstein and Labov rated transcripts of the representational speech of both middle class and working class 5 year olds, and were found to interpret the results in accordance with expectations based on a simplistic misinterpretation of Bernstein's theory. It was found that the students selected from the transcripts only those structures that were consistent with the social class labels.

Edwards (1979) in a discussion centring on teacher's views of "disadvantaged" children, also refers to "expectations which can be seen as essentially natural to teachers." These expectations, he believes, are also essentially inaccurate and have harmful consequences for children. Again reference is made to misunderstandings of the views of Bernstein where a restricted code is seen as being equivalent to any form of non-standard English (NSE), and the non-standard English an inferior linguistic form. Edwards goes on to point out that whilst the teacher's misunderstandings are incorrect, "what people perceive to be correct is often more important than what is (on the best available evidence) correct" (p.105). Bernstein's views are, thus, reinforcing prejudices in teachers concerning non-standard speech.

Rosenthal and Jacobson (1968), have demonstrated that a teacher's expectations concerning her/his students can affect the subsequent performance in the "expected" direction, regardless of the student's actual academic potential. In a paper entitled "The importance of race and social class information in the formation of expectancies about academic performance", Cooper et al (1975), link the Rosenthal research with social stereotyping particularly as it pertains to possible differences in social class judgements concerning the locus of control (Rotter, 1954).

The study carried out by Cooper et al., (1975) indicated that middle class students were expected to receive higher grades than their lower class contemporaries and further, that middle class students were held "more internally responsible" for failure than other students. Thus, the failure of lower class students (some also black in the Cooper et al study) was more often attributed to external forces and as such is presumably more open to influence by the teacher. It is possible that this awareness of "the significance of their own actions in the education of their students" (Cooper et al, 1975, p.319) could help mitigate the ill-effects of the expectation of lower grades for lower class students, in that the teacher could come to believe that with a little help from others the performance of the working class student might change for the better. Of course, if the working class student her/himself also comes to believe in the power of external forces in determining failure and success in the educational setting, then it is not difficult to predict a lessening of confidence in one's own ability to influence one's life.

Buck and Austrin (1971), investigating factors related to school achievement in an "economically disadvantaged" group, also focus on locus of control differences between adequate achievers and underachievers, finding that adequate achievers were more internally controlled than the underachievers. They

hypothesise that "boys in this socioeconomically disadvantaged group tend to see the world with some degree of anomie, and themselves as having little control over their destinies", (p.1822). Externalisation, they argue, may be seen as an adaptive reaction to a real situation in which the boys perceive themselves as being in a marginal position in an "all powerful society."

It appears, then, that, whilst teacher's expectations are widely seen as being of importance to the question of underachievement at school, the Cooper et al., (1975) study hints that these expectations cannot be anambiguously viewed as the explanation of working class failure.

1.4 Culture of poverty

In an attempt to elucidate the relationship between poverty and underachievement, the sociologist Oscar Lewis argued that the poor see themselves as inferior and lowly and are consequently anxious and worried. His "culture of poverty" thesis (1966), characterises the poor as lacking in participation in the major institutions of society, possessing "a minimum of organisation beyond the level of the nuclear and extended family" (Lewis, quoted in Holman, 1978, p.106), having family and sexual practices "at variance with the outside culture" (in Holman, 1978), and as espousing attitudes of helplessness, dependence and inferiority. These characteristics are seen as coping mechanisms which make poverty self perpetuating. However, Holman in reviewing this thesis, cites evidence to discredit Lewis's claims. For instance, the attitudes of the poor towards work appear to be similar to those of the non-poor, few differences have been found between the poor and others as regards their aspirations particularly towards education and personal advancement. However, Heffernan (cited by Holman, 1978) notes that few poor persons are actively involved in the running of political

parties, although Valentine is quoted as providing evidence to support the participation of poor persons in collective organised activities. The sexual standards and behaviour patterns of the poor do not appear to differ significantly from those of the non-poor, neither, conclude Miller et al, is there much difference between different social groupings in the value placed on thrift. Holman adds that whilst the poor do not experience conditions which allow or encourage savings, the research suggests that they accept the desirability of such a practice. In all, Holman concludes that the research findings do not support the culture of poverty thesis.

1.5 Language differences

The possible involvement of language in underachievement and deprivation is often suggested. In particular, it is claimed that many children who are underfunctioning are "restricted code speakers" (Cashdan & Esland, 1972, p.167).

1.5.1 The "restricted code"

The restricted code has a long history, extending forward for well over a decade from 1959 when Bernstein first proposed the existence of "a public language" and "a formal language". It is the "public language" that is the precursor of the "restricted code". Characteristics of a public language are claimed to be -

1) Short, grammatically simple, often unfinished sentences, a poor syntatical construction with a verbal form stressing the active mood.

2) Simple and repetitive use of conjunctions (so, then, and, because).

3) Frequent use of short commands and questions.

4) Rigid and limited use of adjectives and verbs.

5) Infrequent use of impersonal pronouns as subjects (one, it).

6) Statements formulated as implicit questions which set up a sympathetic circularity, e.g. 'Just fancy?' 'It's only natural, isn't it?' 'I wouldn't have believed it'.

7) A statement of fact is often used as both a reason and a conclusion, or more accurately, the reason and conclusion are confounded to produce a categoric statement, e.g. 'Do as I tell you', 'Hold on tight', 'You're not going out', 'Lay off that'.

8) Individual selection from a group of idiomatic phrases will frequently be found.

9) Symbolism is of a low order of generality.

10) The individual qualification is implicit in the sentence structure, therefore it is a language of implicit meaning. It is believed that this fact determines the form of language.

(Bernstein, 1959)

By 1962, the terms "restricted" and "elaborated" codes appear to replace the earlier "public" and "formal" languages though the characteristics of the public and formal languages seem to apply to the new categories. In an experiment to investigate the relationship between social class and codes (Bernstein,

1960), to be discussed later, different "verbal planning orientations" were found by Bernstein to be associated with the two codes, in that working class subjects were found to use a longer mean phrase length than middle class subjects. These results were taken to mean that the middle class produce a "higher level of speech organisation" than their working class counterparts. Drawing from the work of Goldman-Eisler (1958, 1961), Bernstein argues that the longer the phrase the better organised, and more predictable the sequence (the result, it is claimed, of "common verbal conditioning within a community", 1962b, p.89). The longer middle class pauses were interpreted as evidence supporting the earlier Goldman-Eisler finding that abstracting and generalising require more time than description, again interpreted as indicating a higher level of organisation in middle class subjects.

By 1965, Bernstein has incorporated the finding of working class well organised sequences into his definition of the restricted code. Such an organising structure, argues Bernstein, is "wholly predictable" for speakers and listeners. Restricted codes are now seen as being not necessarily linked to social class. However, it appears that Bernstein believes that the elaborated code will normally coincide with "a stratum seeking or already possessing access to the major decision-making areas of the society", (p.130), and that some children (those socialised within some sections of the working class, particularly the lower working class) can be expected to be limited to a restricted code.

In 1971(a), Bernstein argues that speech essentially defines a given role, and that children learn different roles by virtue of their family's class position in society. The relatively easy predicability of the restricted code is again stressed along with its rigid syntactic organisation. Similarly, in 1971(b), the restricted code is described as having its basis "in communalized roles, realising context-dependent meanings

i.e. particularistic meaning orders" (p.181). The particularistic meaning orders of the restricted codes are contrasted with the "universalistic" ones of the elaborated code.

From the outset, Bernstein points to the "logical, social and psychological" (1959) implications for restricted code or public language speakers.

1.5.2 Implications of restricted code use

Throughout the development of the concept of restricted and elaborated codes, Bernstein elucidates the implications of restricted code (or public language) use, and having read both Sapir and Whorf in 1956 (Bernstein, 1974, Introduction, p.6) proposed his own version of the linguistic relativity hypothesis which claimed that "...there will arise distinct linguistic forms, fashions of speaking, which induce in their speakers different ways of relating to objects and persons" (1965, reprinted in 1975, p.123). The implication of the first characteristic of the public language (see 1.5.1) concerning the verb form and stressing the active mood is that the verbal construction may fix "a given process" in an inappropriate time as a result of insensitivity to tense. Bernstein argues that the length and type of completed thought may be affected by the simple sentence construction and short unfinished sentences that also characterise the public language. Furthermore, argues Bernstein, lack of the use of the term "one" may lead to a loss of "possibilities" of reaching beyond the immediate experience. The cognitive implications of the sixth characteristic concerning statements used to bring about termination of behaviour is that opportunities for learning will be curtailed. In fact, Bernstein goes so far as to say that learning will tend not to occur. The tendency to use categoric statements (characteristic 7) has social implications, argues Bernstein,

in that, authority being conferred upon a person, social relationships will be of an affective type. While it can be argued that there is a large affective component in all social relationships, presumably Bernstein is arguing that the use of categoric statements does not encourage the understanding of reasons for particular courses of action. Bernstein claims that later characteristics also have the effect of "maximizing the emotive rather than the logical impact" of utterances (1974, p.46).

Bernstein (1962a), makes another claim for linguistic relativity in asserting that verbal "planning orientations" are independent of intelligence, and "inhere in the linguistic codes which are available to normal individuals", (p.91 in Bernstein 1974).(1) Later in 1971(a), Bernstein claims that restricted code use "raises the 'we' above 'I'" (p.146 in Bernstein, 1974) and "creates social solidarity at the cost of the verbal elaboration of individual experience", (p.147 in Bernstein, 1974).

More generally, Bernstein asserts that "the relative backwardness of lower working class children may well be a form of culturally induced backwardness transmitted to the child through the implications of the linguistic process", (p.136, Bernstein, 1974).

While Bernstein now argues that restricted code speakers are not linguistically deprived "in the technical sense" (2), he admits that his work has inadvertantly contributed towards

(1) Bernstein generalizes from the observation that verbal planning appears to be independent of intelligence to claim that such planning is independent of psychological factors. This indicates some degree of confusion in that verbal planning is itself a psychological factor.

(2) Not further defined by Bernstein, 1970, p.216.

the formulation of the educational categories of "linguistic and cultural deprivation" and "social disadvantage", and has thus played a part in the establishment of compensatory education schemes. During the 1960's, education, particularly language training became the proposed panacea to the ills of deprivation. Many teachers both in schools and in Colleges of Education "recognise" that "educational failure is primarily linguistic failure", (Doughty and Thornton, general introduction to Trudgill, 1975), and thus, tend to turn to linguistic science for guidance.

1.5.3 Accent and dialect

Let us now consider how accent, dialect and the perception of speech might contribute to working class disadvantage. Macaulay & Trevalyan (1973), claim that an individual's speech reflects his position in society. Society thus makes social value judgements about the dialect and/or accent of the individual. Although Macaulay and Trevelyan (1973), found that employers expressed the view that "accent is not important", the same employers complained of "slovenly speech" in prospective employees and some reported that applicants who had attended fee-paying schools were more successful in the interview situation. Similarly, Macaulay and Trevelyan found that, in general, the teachers in primary and secondary schools professed "a very tolerant and enlightened attitude towards their pupil's accents", (p.187), but also noted some indication that in practice, the teachers were not always as sympathetic as they claimed. The teachers' own form of speech was felt by Macaulay & Trevelyan to carry an implicit criticism of their pupil's accents, whilst comments concerning "correct" speech and anxiety about "coming down to the level" of some pupils make more explicit criticisms and value judgements.

Thus, speakers of a non-standard dialect (more often working class than middle class) may be at a disadvantage in the school where the teacher may subconsciously attune his/her expectations to the accent, and/or overtly belittle the non-standard (NS) dialect speaker, and similarly there may be disadvantage in the field of employment.

1.5.4 Non-standard dialect and the restricted code

Trudgill (1975) believes that non-standard dialect and "restricted code" are widely taken to be one and the same thing and that this confusion is, in part at least, due to the work of Bernstein. Trudgill goes on to argue that Bernstein's work has affected the ideas of many teachers with regard to working class language. "It has fostered or, in some cases, strengthened the belief that there is something intrinsically inferior about working class language", (p.91). Bernstein himself, in 1970 at least does not appear to believe this, but, continues Trudgill "he has succeeded in giving very many people the impression that he does", (p.91).

1.5.5 Other social class language differences

Do other social class language differences exist? Are they "apparent or trivial rather than real or significant"? (Robinson, 1972/3). Raph (1967) in a literature survey, notes that comparisons of the language and speech of middle class and working class children "point to conspicuous deficits in the lower class group", (p.203). She goes on to elaborate the nature of these supposed deficits. As well as a poverty of vocabulary and paucity of words, she claims that several investigators have found that" lack of a differentiation of referents appears frequently (in the language of disadvantaged children)... You refers to all persons other than self with proper names seldom appearing in spontaneous conversations" (p.205). This particular claim is put to the test in Chapter

5 (Reference in Conversation). Furthermore "speech deprivations" associated with "cultural disadvantage" are said by Raph to include pronounciation and articulation deficits, deficient grammar, and are supposedly associated with deficits in concept formation and reasoning. Robinson (1972/3), in a discussion of the debate about whether there is a "deficit" or a "difference" in language proficiency takes a less extreme position, and whilst arguing for the difference position claims a lower working class language deficit in the command of language to the extent that the lower working class fail to "exploit" the referential function of language, namely the ability to form and ask questions and to evaluate answers. We shall return to this claim in Chapter 6 (Functions of language).

1.5.6 Relationship between linguistic, cognitive and social factors

Two features, then, compound the probably mistaken link between inferiority in general and working class language. The first of these deals with the antecedents of "language deficit". This avenue points back to "cultural deficit", where working class children are seen as lacking experiences "supposedly needed to make them educable", to borrow a phrase from Keddie (1973). This is Wax and Wax's (1964) "vacuum ideology". The second feature is the implication that language deficit will result in "cognitive deficit". Whilst there is some slight evidence to support the occurrence of a mild degree of cognitive deficit in some disadvantaged children (e.g. some retardation in perceptual development in Puerto Rican and black children and lower scores by "socially disadvantaged children" on group intelligence tests (Cohen, 1968)), it is not clear that these "deficits" are in any way related to linguistic deficit, and, indeed, Cohen (1968) prefers the "explanation" of poor diet pre-and post-natally together with intra-uterine complications associated with lower class environmental conditions. Thus, whilst it cannot

be denied that there is inequality in Britain today, and that the poor, the working class, the "socially disadvantaged" suffer from multiple deprivation of a material nature, it has yet to be proved that cognitive and linguistic factors other than the social effects of differences in accent and dialect (already discussed in 1.5.3) play a significant role in the underachievement of children from such deprived backgrounds.

Valentine (1968) points out the paradox in the claim that the poor suffer the "life without culture" implied by the term "cultural deprivation". He further names the "perjorative tradition" established by Frazier (1966, cited by Valentine 1968), whose description of the black poor as being "abysmally disorganised and ...hopelessly infected with social pathologies" may be seen as constituting the main influence in later conceptions of "lower class culture" and cultural deprivation. "Cultural deprivation" is defined by Bereiter and Engelmann (1966) as occurring when there is a falling short of standards of knowledge and ability held to be valuable in the schools by reason of cultural background. While this definition implies a lack of certain skills and knowledge, it clearly does not rule out the possibility of other, different skills being possessed by those supposedly "culturally deprived". These alternative perspectives on the problem give rise to the deficit-difference debate to which we shall return shortly.

"A description of the language of children of low social and economic status requires attention not only to the way children speak ... but also to the way they think", (Raph, 1967, p.204). Here Raph makes explicit the idea of cognitive deficit.

This purported deficiency of the child's thinking forms the focus of two papers published in 1972. Blank and Solomon (1972) describe their one to one tutorial language programme

designed to foster abstract thinking and thus counteract the working class child's "basic deficiency", namely their lack of a symbolic system for thinking. Hess and Shipman (1972), also focus on the effects of "cultural deprivation" on the cognitive faculties of the child, questioning the mechanisms by which these deprivations come to be effective. They conclude that the central quality involved in the effects of cultural deprivation is a lack of "cognitive meaning" in the mother-child communication system. In lower class interactions "the meaning of deprivation is a deprivation of meaning", claim Hess and Shipman (p.176). Such "deprived" children grow up in a cognitive environment where behaviour is not mediated by "verbal cues" or by teaching that relates events to one another and the present to the future. The idea that present activities have greater salience and value to members of the working class than do future activities had previously been taken up by Bernstein in 1958 when he argued that because of this differential evaluation, the working class have a different, more limited time perspective. This topic is re-opened in Chapter 8.

1.6 Personality and emotional factors

A further area of study drawing from the culture of poverty thesis concerns what has been termed "emotional impairment" in disadvantaged children. Kohn and Cohen (1975), hypothesised that there would be a relationship between social class and social-emotional functioning such that the lower the social class the greater the impairment of functioning. Whilst emotional impairment in the first grade (age 5 years) was not found to be a function of social class, the authors conclude that "disadvantaged status" cannot be conceptualised as a unitary dimension which is correlated with social-emotional handicaps in a simple way, thus displaying a certain reluctance to disavow their initial hypothesis. The present study investigates aspects of personal development such as

perception of personal inferiority, social maladjustment and family relations in groups of middle class and working class boys. (Chapter 7).

1.7 Deficit or difference?

The deficit hypothesis has proved a popular topic of research on both sides of the Atlantic, attracting attention of social scientists who were favourably disposed towards its claims and also of those who took an opposing stance. Accusations were made by social scientists against social scientists for attempting "to treat the cancer of poverty and discrimination with a band-aid of language instruction programs". (Wiggins, 1976, p.449). Pro-deficit educationalists were branded "condescending culture-vendors", (Sledd, 1972, p.449), and, in America, where the deficit hypothesis was more readily and usually applied to supposed shortcomings in black Americans, "white ignorance was seen to be a bigger obstacle to social justice than black English is", (Sledd, 1972, p.456). In Britain, similar criticisms of deficit theory were voiced, though in a more restrained but equally political way. "There is something inherently wrong when various social institutions in a democracy equate 'being different' with 'being a problem'", comments Moss (1973, p.19) in an Open University course book.

Closer examination of the anti-deficit arguments reveals two related themes. Firstly a number of social scientists suggested that linguistic deprivation "does not seem to exist", (e.g. Houston, 1970, p.950). Houston takes this anti-deprivation stance in terms of both the nature of language acquisition and in the nature of the structure of language. She argues that, as language learning is species universal and occurs merely by placing a child in a linguistic environment, poor or good teaching becomes irrelevant. Whilst it can be argued that quality of teaching may not affect the

learning of basic structures of language, the question as to the effect of the environment on more subtle features of language must still remain an open one. Houston further argues that lack of reinforcement for linguistic behaviour is likely to limit the use of language in non-reinforcing contexts rather than to give rise to differences in the capacity for language. This may indeed, be the case, but it can also be argued that any such limitation in language use may in itself constitute a form of disadvantage.

The second theme discernable in the arguments of the anti-deficit theorists is the acceptance of some degree of linguistic and cultural difference. Whilst "difference" is in itself a neutral term, "the great power of the middle class has rendered differences into deficits because middle class behaviour is the yardstick of success". (Cole and Bruner, 1972, cited in Edwards 1979, p.27). Stringer (1973), sees language as a symbol of social values, and argues that any judgements we pass on language are often "disguised social judgements", (p.41). Gordon (1968, cited in Edwards, 1979) draws our attention to the middle class bias present in judgements of "deficit". He argues that "instead of discussing the supposed short-term gratification pattern of the disadvantaged youth ... it would be possible to discuss the long-term gratification pattern typical of the middle class, with its consequences (e.g. inability to enjoy the present moment, generation of guilt over immediate pleasures...)", (p.22). Deficits, he believes, are perceived only insofar as they are deviations from middle class norms.

In an assessment of the "Headstart" projects, designed to prevent and compensate for "cultural deficits", Baratz and Baratz (1970), argue that the deficit model (as it applies to black Americans) denies the obvious strengths within the black community, and, furthermore, advocates the annihilation of a

cultural system not understood by most social scientists. The ethnocentric liberal ideology guiding research by "ethnocentric social pathologists", they argue, acts against the best interests of the people it wishes to help, in that the educational system is not encouraged to view student failure as being a manifestation of its own insensitivity to the "culturally different linguistic and cognitive styles that he (the 'uneducable' student) brings to the classroom setting", (p.192). The picture of life in the non-middle class community becomes subtly distorted by the ethnocentric liberal ideology, argue the Baratzes, and when this distorted image is used to justify the implementation of social action programmes such as the "Headstart" series the process may be described as "a subtle but pernicious example of institutional racism", (p.188).

Labov (1969) also accepts some variation in linguistic behaviour, but argues that such variation does not exert a powerful influence on social development, neither does it affect the opportunities of the individual to any extent. Thus, there appears to be considerable support for the view that the deficit model is inappropriate.

1.8 Some conclusions and proposals

In the light of the arguments set out above it might seem that what is needed is for researchers to adopt a relativistic approach to their work. Tulkin (1972) believes that it is common for researchers to remain relativistic in discussions of, for instance, socialisation practices in other countries (though it may be argued, this is by no means a universal phenomenon) whilst being intolerant of subcultural differences within their own country. He goes on to ask whether such cultural relativism, if applied to subcultures, is an entirely appropriate approach either, when success is defined by the "majority" culture (where "majority" may be taken also to include the concept "powerful").

Trudgill (1975), taking the case where Standard English is seen as the "successful" dialect, suggests that some aspects of linguistic diversity can give rise to educational problems. If there is interference between the native dialect and Standard English (SE) dialect to the detriment of the native dialect speaker (Standard English is rewarded or required in certain situations, or the native accent or dialect is belittled) then it is not difficult to predict some degree of educational problems. Furthermore, teachers may subconsciously evaluate accents and dialects labelling the higher status standard English speakers as being academically more promising, as has been discussed above.

If mismatches between standard English and non-standard English (NSE) dialects and accents give rise to misunderstandings which in turn contribute to educational failure, then what courses of action are open to the schools? Trudgill (1975), in a discussion of just this problem, points out the impossibility and danger of attempting to eliminate non-standard English. A second approach is to espouse the cause of bi-dialectalism where competence in a second dialect is taught. Riegel and Freedle (1976), speak of the "long suppressed rage at the injustice suffered by the minorities" which "will affect their willingness to achieve competence in the dialect used by the oppressors", (p.28). The bi-dialectist approach, then, may not prove to be the answer to mismatch problems. A third approach is suggested by Trudgill which involves attitude change in society at large. He proposes that we should attempt to teach an appreciation of dialect and elimination of prejudice, whilst acknowledging that this may appear to be a hopelessly Utopian undertaking. In the meantime as it seems that in real terms non-standard English speakers are at a disadvantage with regard to standard English speakers, it can be argued that the schools are failing their duty if they do not make both children and teachers aware of the existence of discrimination in this

field. Sledd (1972) argues that we should teach our students, and if necessary our colleagues "how society uses language as its most insiduous means of control, how we are led to judge others - and ourselves - by critera which have no real bearing on actual worth", (pp.455-6).

Proposals for dealing with possibly more fundamental features of language deficit would probably not now emphasise schemes for language training and verbal enhancement such as have appeared in the past (e.g. The Headstart Programme). Bernstein (in Cashdan & Grugeon, 1972) openly criticizes the concept of "compensatory education" and stresses the need to provide an "adequate educational environment" in general. Compensatory education, he argues, "serves to direct attention away from the internal organisation and the educational context of the school, and focus our attention on the families and children".

1.9 The Present Study

1.9.1 The focus of the present research

Much of what Bernstein writes is theoretical in nature (e.g. Bernstein 1959, 1965, 1971, all reproduced in Bernstein, 1974), and is not easily open to empirical test. However, in 1960, Bernstein carried out a study "designed to show that" restricted and elaborated code speech variants are related to different status groups. This study is a key one in a number of respects:

1. It appears to be the only study Bernstein himself carried out.
2. Its aim is "to show that" rather than to "test whether" correlations between code and class exist.
3. In several respects the methodology of this study gives cause for concern.

The study, reported in Bernstein 1960, 1962a and 1962b is the well-known comparison of the tape recorded discussions of groups of day-release messenger boys and groups of public school boys. At least three aspects of the experimental procedure give cause for concern. Firstly, in 1962a, Bernstein reports that he thought that the working class group would find the test situation threatening and that this would interfere with the speech. Consequently all the working class groups had two practice discussions (one a week) before the test discussion. This was not the case for the middle class group, as Bernstein claimed that such trials were impracticable. Furthermore, the working class groups contained members with varying degrees of personal contact prior to the experiment, whilst for the middle class group the social and educational contact was not known, but it was thought that there was a low probability of members being in the same form or house. Thus, the degree of personal contact between members of the different class groups at the time of the test discussion was far from comparable. These dramatic differences in "affiliation" between group members, it may be argued, could play a major part in giving rise to the differences in language that Bernstein found and reported as being social class linked.

Bernstein does not state the topic(s) for the working class practice discussions, so we cannot rule out the possibility that the test discussion topic ("The Abolition of the Death Penalty") was not new to the working class groups on the occasion of the recording. If this were the case, then, in interpreting the observation that working class groups tended to say less than middle class groups, we must look to an explanation involving a degree of boredom on the part of the working class groups.

A second area of concern involves the intervention of the research worker during the recording sessions. Bernstein reports that this researcher intervened in the discussion when a particular sequence was exhausted or a voluntary contribution came to an end or when a boy was monopolizing the discussion (interventions, we learn, were "considerably greater for the working class groups" and furthermore "little attempt was made to standardize the questions put to the groups"). This, taken in conjunction with the aim of the study (to "show" rather than to "see if") again suggests that to attribute any and all language differences found simply to the social class variable may be misleading.

Finally, Bernstein indulges in a somewhat irregular practice during the selection of the speech sample for analysis. During this selection he reports that "the arrangement of the groups for the purpose of the analysis was different from the original grouping", and although all "exchanges" of contributions from various group members between groups seem not to occur across class boundaries, the benefits of such a rearrangement are far from being made clear. Bernstein, further, reports that the 1800 words following the first five minutes of discussion were divided into "long" and "short" utterances (where "long" indicates utterances of at least 40 syllables and "short" between 10 and 40 syllables), and that only long utterances were used. Thus, 5 minutes of early discussion which may contain examples of more explicit speech ("elaborated") are lost to analysis. This omission will differentially affect longer and shorter discussions. The "short" utterances omitted from the analysis may also warrant further investigation.

Whilst it cannot be claimed that Bernstein's own study unambiguously illustrates the link between codes and class, other researchers working within Bernstein's framework, also carried out empirical investigations and have reported

differences in language predicted from Bernstein's "theory". It seems unlikely, that without these studies Bernstein's other, largely theoretical works, would have had the impact on educators that they undoubtedly have had. Lawton's (1964) replication (reported in Lawton, 1968), of Bernstein's study of speech and investigation of written language of 20 boys from two separate schools (a secondary modern in a working class area and a middle class independent fee-paying school), is more tightly controlled that Bernstein's original, in that no hint of prior practice on the part of the two working class groups is in evidence, and all boys were reported to be of average verbal and non-verbal intelligence (Bernstein reported discrepancies between verbal and non-verbal IQ scores in some of his groups). Lawton gives us no information concerning the degree of personal contact between groups of boys prior to the experiment, nor any detailed information concerning how they were selected, but we are told that all groups met weekly over a six-week period in order to complete the written tasks before meeting together for the discussion. It is unlikely that the boys would fail to exchange some news and views at these times, though presumably, this possibility for increased "affiliation" applied equally to all groups. The topic for discussion again concerned the capital punishment issue and, again, is unlikely to have been a particularly popular topic for any group. (Nothing approaching this was suggested by the Edinburgh sample, See Chapter 2). It is also possible that there was a class bias concerning the knowledge of group members about the topic. Again, there is no information given, so this possibility must remain. Certainly the working class boys wrote shorter essays than their middle class peers which could suggest that they were ill at ease with the titles and topics provided, and class differences varied according to the topic set. Lawton notes that the class differences are <u>least</u> marked in the essay on soccer and in the story reproduction task.

Hawkins' (1969) investigation of exophoric and anaphoric reference in 5 year olds, to which Bernstein refers in his 1971 paper, may also be criticized on several points. Firstly, he did not control for ability of the children. Secondly, he interviewed the children individually (after only 3 weeks at school) which, for some, must have been an alarming experience. In his account of class differences he presents "somewhat exaggerated" versions of the "boys playing football" story. This, again, seems to be dubious experimental practice and unnecessary when actual examples of stories told were readily available.

Further studies will be discussed in later chapters. It may be that, whilst these studies do appear to provide some support for various aspects of Bernstein's work (which has commonly become associated with working class language "deficit"), we must consider whether other factors may also be involved in producing the differences until now regarded as "class" differences. Bernstein's own experimental study points to two other variables, namely to the degree of contact or familiarity between group members, and to differences in knowledge about or enthusiasm for the topic under discussion.

The first impetus for the present research came from the possibility that language differences between groups might be explained by factors other than the social class variable. However, another focus of interest was in the implications of restricted code use. There are still those who have recently claimed that use of the restricted code has implications in psychological fields as diverse as perception of time, personality development as the formation of relationships, as well as in areas more closely linked to language. Included in this latter category are the appropriate or inappropriate use of referents and the differential use of language more generally in terms of which particular functions are or are not fulfilled by such use.

1.9.2 The aims of the present study

The aims of this research may be summarized as follows.

1. To examine features of the deficit hypothesis, particularly as they relate to psychological concepts, and to explore the "dependency relation" between linguistic ability and "sociopsychological experience" (Dittmar, 1976). Using an experimental procedure similar to that described by Bernstein (1962b), but manipulating factors such as topic of conversation and affiliation patterns within groups, the research aims to investigate a possible alternative explanation of group differences previously attributed solely to the social class variable.

2. To carry out a number of linguistic analyses (previously applied to a variety of different experimental situations) on the same corpus of speech, and examine any patterns in the results of the various analyses.

3. To study language in use rather than language structure, and thus explore further areas of supposed working class deficit. It is also intended to link this part of the investigation with the results of the more structural language analyses.

4. To investigate the effects of any conflict experienced by the working class child adapting or failing to adapt to middle class norms at school, and by means of a personality measure to expose any possible conflicts of value or identity.

5. To examine an area traditionally seen as providing evidence for working class deficit, namely that of time perception and perspectives.

Chapter 2 gives details of the experimental design chosen, and describes the final composition of the conversational groups. Control measures are elaborated, together with those factors taken into account in the assigning of social class numbers to the boys. Details pertaining to final choice of topics of conversation and affiliation structures within groups are also included.

Chapter 3, the "Pronoun Study" reviews some of the empirical evidence that supports Bernstein's theory as it relates to personal pronoun usage, together with the contra-evidence. The Functional Sentence Perspective theory is briefly discussed, particularly as it pertains to pronoun usage, and an alternative explanation for supposed working class deficit investigated. Predictions and hypotheses are set down, and details of the statistical analysis used elaborated. A discussion of the results of the analysis follows, and an account of a "replication" experiment brings the chapter to its close.

Chapter 4, "Conversation Structure", concentrates on the "profiles" of pronoun usage over the conversation, contrasting high and low affiliation groups in particular. It is hypothesised that high affiliation groups will initially use a relatively high proportion of pronouns which will decrease as the conversation progresses, and that the opposite effect will characterise low affiliation conversations. Again a "replication" experiment is reported.

Chapter 5 "Reference in Conversation" is concerned with an analysis of anaphoric and exophoric reference and particular attention is paid to ambiguity that is signalled by questions. Once more, a regression analysis allows some ordering of the importance of the major independent variables in the study to be made. Recommendations for further courses of study are made.

Chapter 6, "Functions of language" study, investigates differences in the use and functions of language brought about by situational factors. A taxonomy of language functions elaborated by Robinson (1972) is used in this study, and is related to Halliday's child uses of language. Various predictions concerning social class differences are tested.

Chapter 7, "Personality Study", reports the results of the Rogers' Personality Inventory completed by two groups of boys, one working class, one middle class. Three aspects of personal development are investigated, namely the degree of personal adjustment, the degree of social adjustment and finally the extent to which the boys are adjusted within the family.

Finally, Chapter 8, "Time perspectives", briefly reviews some of the studies relating to perception of time, and then reports the results of a simple test of the "time span of anticipation". Hypotheses based on the deficit model are tested and a brief preliminary investigation into the contents of the events lists generated by the boys carried out.

EXPERIMENTAL DESIGN

2.1 Initial ability screening

225 boys (mean age 12.73 years, S.D. = 3.91 months) from the first year classes of two Edinburgh comprehensive schools constituted the population from which our final sample of boys was taken. Some first year boys in remedial classes were excluded. In order to control for intellectual ability the whole population was "screened" by means of the Raven's Progressive Matrices (R.P.M.) and the Mill Hill Vocabulary (M.H.V.) tests. These two tests were chosen so that comparisons with Bernstein's 1962 (a and b) studies could be more easily made. Tests were marked, and raw scores converted into grades corresponding to percentile groups rather than into exact I.Q. scores, one grade being calculated for each of the two tests. The relationship between percentile groups, grades and verbal descriptions of categories is shown in Table 2.1 below.

Table 2.1

Percentile Group	Grade	Verbal Description
95 and over	I	Intellectually superior
90 and over	II+	Definitely above average
75 and over	II	in intellectual capacity
Over 50	III+	
Over 25 and under 75	III	Intellectually average
Below 50	III-	
25 and under	IV	Definitely below average
10 and under	IV-	in intellectual capacity
5 and under	V	Intellectually defective

(After Raven 1960).

2.2 Social class assignment

Next, each boy was assigned a social class number on the basis of the father or mother's occupation where this information was known, the higher status occupation being chosen in each

case. Such information concerning occupations was obtained (anonymously) from school records, and ambiguities resolved by the headteacher where necessary. The classification system used was the Registrar General's social class groups from the 1970 census (England). In this system, large numbers of socioeconomic groups are arranged into a small number of broad categories (See Table 2.2), Classes I & II constituted our middleclass (MC) group, and classes IV and V our working class (WC) group.

Table 2.2

Social Classes (1970 Census Classification of Occupations)

I	Professional etc., occupations
II	Intermediate occupations
III	Skilled occupations
	(N) Non-Manual
	(M) Manual
IV	Partly skilled occupations
V	Unskilled occupations

Each category is felt to be homogeneous in relation to the general standing within the community of the occupation concerned (p x 1970 census classification).

In about one third of all cases only the father's place of work was known. In order to avoid excluding these boys from the sample for lack of information, the rateable value of the house in which each boy lived was obtained from the local valuation office, and known occupations were related to these rateable values (RV's). (See Figure 2.1). This was felt to be a legitimate procedure in that the 1970 census claims that the criterion of general standing within the community of each occupation is "naturally correlated with... other factors such as education and economic environment". Furthermore, Higgins (1976) whilst believing that in studies involving social class as a variable, the choice of an index is often arbitrary and that different measures of an index can lead to different classifications, none the less, indices such as occupation,

FIGURE 2.1

Distribution of Rateable Values

education and residence are "quite highly correlated with each other". Blishen (1958), in a review of occupational scales quotes Kahl and Davis who find that the two variables, occupational position and quality of house and residential area, seem to underlie all others.

In the present study an attempt was made to hold formal education constant, boys from all social classes attending the same two schools. (The schools were geographically very close, and their catchment areas adjacent. Pupils followed very similar curricula, schools were organisationally similar and professed to very similar aims). It was thus possible, to minimize schooling differences which have been found to be "especially conspicuous when different social classes... are compared", (Chesser et al., 1965, quoted in Higgins, 1976).

Figure 2.1 shows that the bulk of middle class boys (those whose parents are classified as social classes I and II) live in houses with RV's of 90 or over, whilst working class boys (social classes IV and V) tend to be found living in houses with RV's of 49 or less. In the middle ground are found social classes II, III and IV, with social class III predominating. Thus, in cases where the parental occupation was not known, boys living in houses with RV's of 90 or over were classed as middle class and those living in houses with RV's of 49 or less as working class. All boys living in council houses were classified as working class.

The most frequently occurring occupation in our middle class group was that of lecturer in either one of Edinburgh's two Universities or in a College of Technology or Further Education. Next most frequently occurring occupation was that of senior civil servant, with school teachers and doctors following closely behind. More than one father in our middle class group was a manager, an architect or a clergyman, and the sample also included a zoologist, a quantity surveyor, an

accountant, a computer systems analyst, a research geneticist, an hotel owner and a museum curator. Occupations in the working class group included more brewery workers than any other single category, together with caretakers, labourers and packers as frequently occurring occupations. In this group there were also postmen, removal men, washers up, sweepers up, waiters, a jobbing gardner, a machine operator, a milkman and a steel erector.

2.3 Final selection of average ability boys

Next, the ranges of intellectual ability of the two socioeconomic groups were investigated. Tables 2.3 and 2.4 show the percentage of boys in each percentile group for the two social classes separately for both non-verbal and verbal ability.

Table 2.3

Non-verbal ability range and social class (from R.P.M. scores)

Percentile Grade Group	Working Class %	Middle Class %
I	5.71	16.5
II	17.14	35.05
III	48.57	40.21
IV	21.43	8.25
V	1.43	0
	(N = 70)	(N = 97)

Table 2.4

Verbal ability range and social class (from M.H.V. scores)

Percentile Grade Group	Working Class %	Middle Class %
I	0	12.63
II	25.40	52.63
III	57.14	34.74
IV	17.46	3.16
V	0	0
	(N = 63)	(N = 95)

TABLE 2.2 Non-Verbal Ability Range and Socioeconomic Class

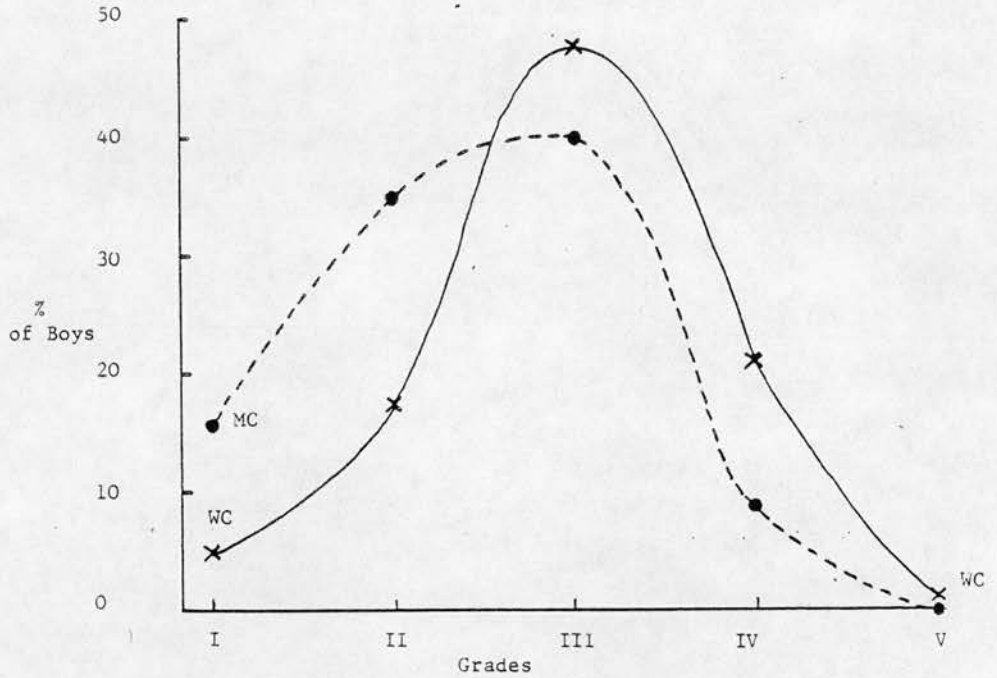
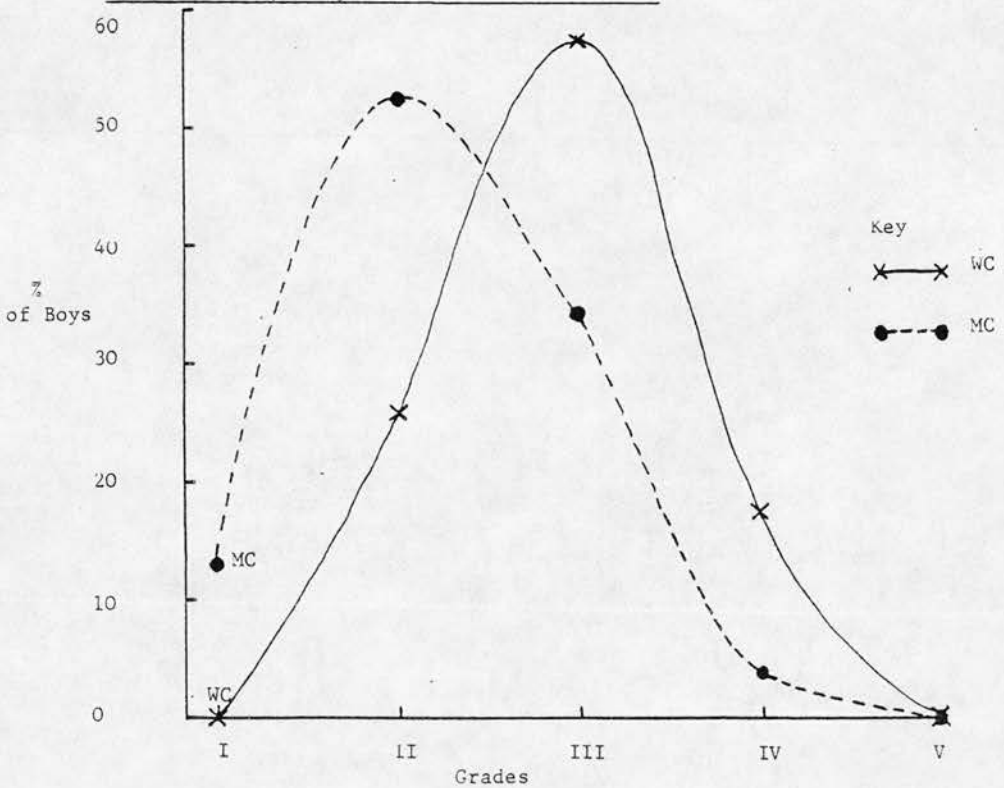


FIGURE 2.3

Verbal Ability Range and Socioeconomic Class



Graphs were then drawn, relating intellectual ability to social class category. Figure 2.2 shows the distribution of non-verbal ability over the 5 percentile grade groups for the two social classes separately and Figure 2.3 shows a similar pattern for verbal ability.

It cannot be argued that our working class groups show a higher proportion of verbal IQ's towards the lower end (Grades IV and V), as has been suggested by some previous investigations (e.g. Ravenette, 1963). Distributions of both verbal and non-verbal ability in our working class group are nearly normal, whilst in the middle class group there does appear to be some skewing towards the higher ability grades (I & II), particularly with regard to verbal ability. The area of maximum overlap between the working class and middle class distributions determined which boys were finally chosen to take part in the study. Boys achieving grades III or II in both tests provided the largest sample for the study. 48.00% of middle class boys had higher verbal than non-verbal scores, compared with 38.60% of the working class boys. Thus, boys still remaining in our sample belonged to social classes I & II (middle class group) or to classes IV and V (working class group), they fell into ability grades II or III, and the mean age for the working class group was 12.73 years (S.D. = 3.45 months) and that for the middle class group 12.72 years (S.D. = 4.37 months).

2.4 Topic choice

Boys chosen for the study were then asked to make a list in order of preference of the sort of things they most enjoyed talking about with their friends. At the same time they were also asked to choose which boys (of those remaining in the sample from their class) they would most like to talk with when the experimenter returned with the recording equipment. A list of first and second topic choices was compiled, with

all choices receiving more than two "votes" listed in Table 2.5.

Table 2.5

1st and 2nd choices

	Total choices	Middle class choices	Working class choices
Football	22	8	14
Sport	20	13	7
Sex	18	10	8
T.V.	8	6	2
Girls	7	4	3
Motor Bikes	6	4	2
Jobs & Careers	5	3	2
Teachers	5	4	1
Aircrafts & War	5	2	3
Famous Ships and Boats	3	2	1
Ski-ing	3	3	0

Table 2.6 lists other "sporting" choices made by only 1 or 2 boys.

Table 2.6

"Sporting Choices"

Athletics	High Jumping
Badminton	Judo
Basketball	Rugby
Boxing	Shooting
Cycling	Snooker
Fishing	Swimming
Forming a darts club	Table Tennis
Games	Tennis
Hearts (F.C.)	

The wide variety of non-sporting choices made by only 1 or 2 boys is shown in Table 2.7.

Table 2.7

Non-sporting choices

Aces
Aeronautics
Animals
Army
Big Aggie
Birds
Black holes
Cars
Castle under seige
Cats
Charlie's Angels
Chemistry
Cooking
Death
Dinosaurs
Dogs
Drums
Electronics
Farms
Families
Films
Food
Ghosts & the Supernatural
Gibralter
Hobbies
Holidays
Home-rule for Scotland
Horses
Hotels
Human body
Kojak's lollies
Life of a beaver
Love
Magical tricks
Morocco
Mr McCaig
Music
Naughty books
Pigeons
Pocket money
Politics
Pop Music
Porno mags
Price of beer
Riches
Rocks and Planets
Royalty
School
School dinners
School uniform
Science fiction
Scouts
Sharks
Snakes
Swapping football cards
The future
Travel
Violence
What I did the day before

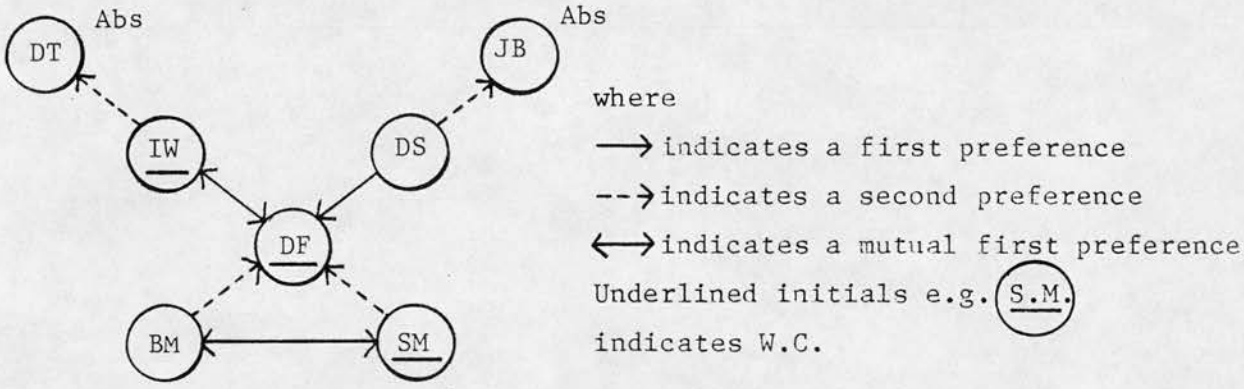
In view of the widespread popularity of "sport" (including football and ski-ing together with the sporting choices (listed in Table 2.6) with boys of both socioeconomic class groups (some sport was listed first or second by 63.16% of the boys) this was chosen as the popular topic of conversation. Since the unpopular topic of conversation had to be equally "available" to both groups, and since "Independence for Scotland" was a subject that had received a lot of T.V. and newspaper coverage at the time the experiment was being carried out, this was selected as the unpopular topic. It had, furthermore, been a topic of discussion in social education classes in both schools, and it was felt that all

boys would have some knowledge of the subject and some relevant information concerning it, however slight. At the same time, only one boy had listed "home rule for Scotland" as a topic of choice.

2.5 Sociometric choices and affiliation

The choices made by the boys as to their preferred conversation companions were used to analyse the internal structure of each class subgroup by means of Moreno's (1953) technique of sociometry (reported in Argyle, 1969). Moreno's rules were observed in that each choice was made from a limited group, choices were made in terms of a specific activity (recording an informal conversation), choices were private and members understood what was required of them. Subjects were also allowed an unlimited number of choices, even though their first and second preferences only were used in the construction of sociograms, an example of which is shown in Figure 2.4.

Figure 2.4



D.F. appears to be popular (he was chosen by four boys) whereas D.S. appears as an isolate (not chosen by anyone). In this group there are no "cleavages" in that there are links between all members of the group. Cleavages did occur in approximately one third of all subgroups. On the basis of these sociometric data, boys were assigned to high and low

affiliation groups. For example, in Figure 2.4. D.F., S.M., and I.W., were grouped together as a high (Hi) affiliation working glass group, and B.M., D.S., and J.B. or D.T. constituted a middle class low (Lo) affiliation group. Hi affiliation groups consisted of at least one mutual choice within the same socioeconomic class, together with one single choice, whilst in Lo affiliation groups there were no choice links. 6 each of 4 types of group were established, namely Hi affiliation working class, Hi affiliation middle class, Lo affiliation working class, and Lo affiliation middle class. In the 19 sociograms constructed, 26 cross class mutual choices were found, together with 27 interclass mutuals. These reciprocal choices represented slightly less than one third (53/168) of all choices made, and compared with the 70% of reciprocated leisure choices found by Jennings (1959, reported in Argyle, 1969) is a low proportion and bears more superficial relation to Kennings 35% of reciprocated "work choices". It is possible, that the boys saw the proposed conversation as "just another lesson", although their subsequent behaviour and the conversations themselves do not support this view. It is also possible, and perhaps more likely, that the relatively low proportion of mutual choices is due to the restricted nature of the sample available to the boys, many "friends" having been excluded on account of their performance on the R.P.M. and M.H.V. tests or because they fell into social class III. It appears that socioeconomic class is not a major factor in the development of friendships in groups of these boys at least, on the basis of the similar number of cross and inter class mutual choices made.

2.6 Order of recording

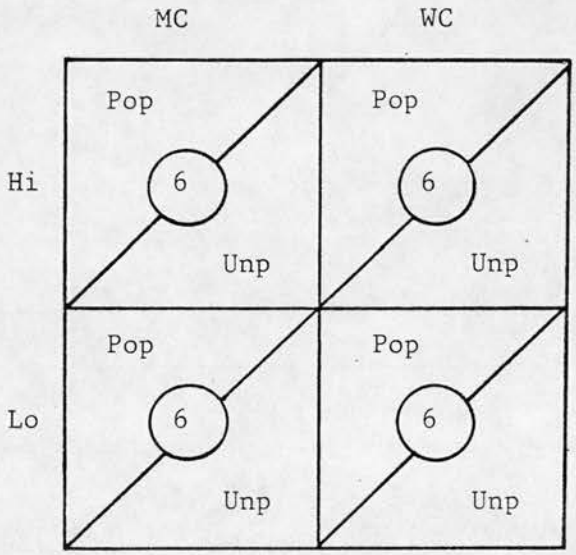
Finally, the order of recording the popular and unpopular topic conversations was balanced over the groups, approximately half of each recording the popular topic first and the unpopular second, the remainder recording in reverse order.

Recording time was made available by both schools during the boys' social education class times, thus minimizing any dramatic variation in attitude to the task due to some boys missing unpopular lessons such as French or Maths (this information emerged during subsequent recordings) whilst others missed a popular activity such as sport.

2.7 Experimental design

Thus the experimental design may be summed up as in Figure 2.5.

Figure 2.5 - Experimental Design



In each cell were 6 groups, each group consisting of 3 boys, 72 boys in all participating in the experiment.

2.8 Postscript on the boys' later achievements

Follow-up information concerning examination success, employment and unemployment and further education was obtained

for 83[1] of the boys (48 middle class, 35 working class) who participated in this study. Four of these boys (3 working class, 1 middle class) left school before taking "O" grades, whilst the rest stayed on and took their exams in the summer of 1980. The number of "O" grades passed at an A, B or C band varied between 0 and 8, with an average of 1.21 subjects per boy for the working class group, and an average of 4.64 subjects per boy for the middle class group. Just over half of the remaining 79 boys either stayed on at school for a fifth year and a course of study leading to Higher ("H") grade exams or proceeded to a college of further education. Three boys went on to further education courses, one in order to become a blacksmith (working class), one to do painting and decorating (working class), and one to a catering course (middle class). Of those staying on at school, 90% (36 boys) were middle class, and thus only 4 working class boys stayed on to take "H" level exams. Information concerning employment and unemployment of those leaving school was incomplete, but of the fourteen boys known to have left school with no job to go to, only two were middle class (14.29% compared with 85.71% working class). Twelve boys left school to go to known jobs (6 working class, 6 middle class), the middle class boys becoming joiners (2) (III), an apprentice engineer (III M), an electrician (III M), an electronics technician (III M), and a trainee chef (III M) and the working class ones a painter (III M), a blacksmith (III M), an apprentice engineer (III M), a Baker (III M), a plumber (III M), and a milkman (IV). Numbers in brackets indicate the Registrar General's social classification for each of these jobs.

Thus, the general patterns observable in the country at large are mirrored in this small sample of boys who participated in the present study. Although, at 13 years the boys had roughly equivalent abilities (as measured by the Raven's Progressive Matrice and the Mill Hill vocabulary scale), there is a marked class asymmetry in their academic achievement, their

(1) This number includes a few boys who, while being eligible for the study in terms of level of ability and SEC, did not participate in the recording session. These boys either acted as "reserves" or were absent at the time of recording.

employment prospects and their taking up of education after the statutory leaving date. There is, however, no discernable difference in type of employment taken up by the very few boys from both socioeconomic classes who have obtained a job.

PRONOUN STUDY

3.1 The Background

3.1.1 Introduction

In 1962 Bernstein published his paper "Social Class, Linguistic Codes and Grammatical Elements". In this paper he described an analysis of the transcripts of his messenger and public school boys' discussions on the topic of the abolition of capital punishment in terms of "grammatical elements". Whilst the degree of usage of personal pronouns did not feature anywhere in his earlier lists of characteristics of "public" and "formal" languages (Bernstein, 1959), later renamed and recast as "restricted" and "elaborated" codes, Bernstein discovered a pattern in personal pronoun usage which he took as supporting evidence for the reality of the two codes. Whether or not this was a justifiable interpretation has been the subject of speculation, and debate has tended to polarize, with some researchers taking the view that language rich in pronouns tends to be "restricted" and limited in possibilities of modification and qualification (e.g. Hawkins 1969), whilst others argue that in certain circumstances, such as when the experimenter and subject are "sharing a particular context", pronouns can be used to convey exactly the same meaning as nouns but can do so more concisely. Another position, where, it is argued, pronouns can carry important information concerning the "Givenness" or "Newness" of information (its communicative dynamism) within an utterance, is a feature of the Functional Sentence Perspective Theory associated particularly with the Czech linguistic school.

Frequency counts of parts of speech were carried out as long ago as the 1930's when Symonds and Daringer (1930), studying the written work of children of various ages, observed that the pattern of use of pronouns with adequate reference was such that there was a rise in frequency of such pronouns up to

Grade 5 (11 years), thereafter a more or less constant high level of use to Grade 9 (15 years) after which there was a steady fall off in usage. Associated with this pattern was a complementary pattern of errors in the reference of pronouns and other modifiers. Here a steady drop in error rate over the same age periods was noted, with a steeper drop in 6th and 7th Grades (12 and 13 years). Thus pronoun usage became used as a measure of the language development of an individual. In a similar study Goodenough (1938), found an increase in the usage of pronouns between the ages of 2½ years and 5½ years. Furthermore, she noted variations in the use of certain pronouns or pronoun groups. For example, pronouns of the first person singular group, "I", "me", "myself", occur with greater frequency at all ages studied, for both sexes, during free play with other children than in a controlled setting with speech being directed to an adult. Thus, the variation in language due to situational factors was noted as long ago as 1938. Goodenough argues that the children felt less need to assert themselves in the controlled situation, the use of the first person singular being associated with asserting oneself, and being indicative of "something in the nature of an ego-consciousness", (p.333).

A study of adult speech relevant to the topic of pronoun usage was carried out by Schatzman & Strauss (1955) which looked at socioeconomic class differences in verbal reports by individuals from an Arkansas community which had just been devastated by a tornado. Class differences in "perspective" or "centering" were found. The descriptions of lower class subjects tended to be made through their own eyes, whilst middle class subjects were able to include several standpoints in their descriptions. Schatzman & Strauss remark that "it is as though he (the middle class subject) were directing a movie". Lower class descriptions used the pronouns "we" and "they" without clear referents, and tended to reflect more emotion than their middle class counterparts.

Thus the two parallel themes in this area of research, namely greater yet less explicit pronoun use being associated with the working classes, and the notion that high pronoun usage after adolescence is an indication of immaturity, have a long history.

3.1.2 Bernstein's grammatical elements paper (1962b)

In Bernstein's 1962b paper which featured differential pronoun usage by working class and middle class subjects, five groups, each of 4 or 5 subjects were used; 2 middle class (groups 1 and 2) and 3 working class (groups 3, 4 and 5).

Table 3.1 gives details of verbal and non-verbal I.Q.'s as measured by the Mill Hill vocabulary scale and Raven's Progressive Matrices respectively. (Details in Bernstein 1962a).

Table 3.1

	Verbal I.Q.	Non-Verbal I.Q.
Middle class group 1	125.0	123.8
Middle class group 2	108.0	123.0
Working class group 3	105.0	126.0
Working class group 4	97.5	123.0
Working class group 5	100.0	100.6

Thus, in terms of measured intelligence, Bernstein's sample corresponds very nearly to that of the present study.

Bernstein's working class subjects were 16 year old messenger boys attending a day-release college one day a week, and his middle class subjects were pupils at one of the major public schools. It may be remembered that each group held an undirected discussion on the topic of the abolition of capital

punishment and that the working class group had two practice sessions prior to the test discussion.

It will be argued here that both the initial degree of personal contact between group members, and perhaps, even more crucially, the increase in group "affiliation" in the working class groups due to the practice sessions, will have important effects on the language used in discussion by the groups, and that the factor "Affiliation" may provide part of an alternative explanation for the results attributed to socioeconomic class by Bernstein. What Bernstein found was that his working class groups used a higher proportion of total personal pronouns, a higher proportion of "you" and "they" combined as a fraction of total personal pronouns (and as a proportion of total words) and a higher proportion of "Sociocentric sequences"(1) than the middle class groups(2). Middle class groups on the other hand, used a higher proportion of "Egocentric sequences" and a higher proportion of "I" in relation to all personal pronouns (and also in relation to total number of words) than the working class groups. (The middle classes also used higher proportions of further "grammatical elements" not relevant to the present study).

(1) "Sociocentric sequences" are defined by Bernstein (1962b) as being occurrences of sympathetic circularity (S.C.), sometimes called terminal sequences. S.C. sequences, claims Bernstein, occur when the speaker requires assurance that the message has been received and invite agreement from the listener. Examples of S.C. sequences include utterances such as "isn't it?", "you know", and "wouldn't he?" "Egocentric sequences" are simply occurrences of sequences such as "I mean" or "I think".

(2) It is not entirely clear how proportions of total personal pronouns and "Sociocentric sequences" were calculated, though Bernstein states that grammatical elements were expressed as proportions of "the appropriate populations" (p.97, 1962b).

3.1.3 Further empirical evidence

In the wake of Bernstein's revival of the topic of pronoun usage, studies have looked at both the written and spoken language of children of various age groups. A study of groups of working class and middle class boys of average intelligence aged 12 and 15 was carried out by Lawton (1963, 1964). The first part of the study looked at the written language of the boys, and the second part took the form of a "replication" of Bernstein's capital punishment discussion experiment. In this replication Lawton found that at age 12 there was no observable social class difference, but that at 15, differences were "considerable and highly significant" (0.004 level). Differences again included frequency of use of sociocentric sequences (where working class boys used more), and use of egocentric sequences (middle classes used more). His prediction with regard to selected personal pronouns, that the older group and middle class subjects would use fewer, was partly confirmed. He concluded that "social class differences in language are already in existence at 12, and become increasingly important in the following 3 years". As discussed in 1.9.1 little is known of the social structures of his groups, merely that four groups of 5 boys from two schools were used. Neither is any information available regarding the boys' familiarity with or interest in the topic of discussion.

Hawkins' (1969) study looks at the speech of 5 year old children of middle and working class backgrounds, and uses as its starting point Bernstein's hypothesis regarding the use of personal pronouns by the two socioeconomic classes, (namely, that use of these pronouns indicates a "lack of specification" which "implies that there is possibly some implicit agreement about the referent"). The results of the analysis of a preliminary study indicated a "broad tendency" for the middle class subjects to use nouns and associated forms more

frequently than working class subjects, and conversely for working class subjects to make greater use of the pronoun and associated forms. Hawkins sees this finding as being important "since it means that the middle class are opening up for themselves the possibility of expansion on a much wider scale, whereas for the working class who use the pronoun the opportunities are very much more restricted." The tasks Hawkins set his subjects involved telling a story stimulated by a series of four picture cards, and then describing a colourful picture (Trotin cards). Hawkins' results appear to suggest that the middle class subjects do, in fact, avail themselves of the opportunity to expand on a wider scale, in that, as well as using more nouns than working class subjects, more of these middle class subjects use epithets (other than "little" or "big") for description or ascription of attitude (e.g. "a huge whale", "the naughty cat") than do the working class subjects. In addition, more middle class subjects than working class use further specification of number (e.g. three boys running away). Working class subjects on the other hand, used exophoric reference (absent referent), to a much greater extent than middle class subjects. (c.f. Chapter 5). The question as to when expansion is appropriate has been raised in connection with Hawkins' studies (e.g. Dittmar, 1976). For instance does a child telling a story or describing a picture to the adult experimenter need to be explicit when both participants in the communication can see the pictures? The pictures do the necessary "expanding".

Contemporary with the Hawkins study, a linguistic analysis of written material was carried out in Germany by Oevermann (1970) (reported in Dittmar, 1976). In this study Oevermann looked at at least 70 linguistic variables, including Bernstein's categories of personal pronouns. These personal pronouns revealed class differences only to the extent that middle class children used "I" more frequently than their lower class contemporaries who preferred first and third

person plural pronouns. The more frequent middle class use of "I" suggests "being able to make an individual judgement", (Dittmar, 1976 and Oevermann, 1970). Dittmar considers this to be an oversimplification and argues, moreover, that the assumption is unjustified. No evidence from personality studies or theory is offered by either side in the argument. The present study investigates personal pronoun usage and in a later chapter questions this assumption of greater middle class individualization and self-assurance by providing evidence from a personality study. (Chapter 7).

Studies so far considered have all provided some form of support for some aspect of Bernstein's theory. However, in 1965 Robinson carried out a study using pairs of 12 and 13 year old boys and girls, one middle class, one working class in each pair. Pairs were matched for verbal and non-verbal intelligence. Two tasks were required of each subject, namely, the writing of 2 letters, one informal (to a friend), the other formal (to a school governor and requiring the inclusion of reasoned argument). The letters were analysed on a large number of linguistic variables similar to those investigated by Bernstein (1962b), and Robinson found that social class differences did not appear in the more formal situation where there was pressure on both groups to use an elaborated code. Differences of the type found by Bernstein were found in the informal letters, however.

Robinson also looked at what he saw as being relevant features of the experimental design of studies of socioeconomic class differences. Features which Robinson argued might increase the probability of working class subjects "switching"[1] to an

(1) Bernstein (1965), cites an example of "code switching". A man at a party initiating a conversation with a woman will initially use a restricted code, claims Bernstein. The man will then move towards an elaborated code and thus increase the possibilities for discovering common ground. The man may then move back into a restricted code. These changes are accompanied by changes in the quality of the relationship, argues Bernstein, and the ability to switch codes is felt to control the ability to switch roles.

EX BIBL. UNIV. GRONINGEN

elaborated code "if they have one" included the topic of communication, the "type" of receiver (listener or reader), the structure of the communication system, and the mode of communication.

3.1.4 Criticisms

Thus far the empirical evidence purportedly in support of Bernstein's theory as it relates to personal pronoun usage seems to outweigh evidence for the opposing view put forward by Robinson (above). Further examples of empirical studies which do not provide support for Bernstein's theory will be discussed in Chapter 5. The apparent wave of confirmation of the distinction between elaborated and restricted codes has not gone unchallenged on theoretical grounds. Already, alternative explanations for differences noted have been hinted at. For example, Goodenough (1938) foreshadowed the present emphasis on situational factors. The different degrees of emotionality noted in the Schatzman & Strauss study (1955) between the two socioeconomic class groups was not fully investigated in terms of actual loss and distress experienced by individuals. Differences due to the topic of communication have, again, been discussed and investigated for the written mode of communication though as far as is known, not until the present study has conversation been investigated in a controlled experiment. In Bernstein's original study, the degree of affiliation (as defined in Chapter 2) between group members was different for the two socioeconomic class groups, and the importance of this as a factor likely to affect both the form and content of communication ignored. Subsequent investigations, whilst as far as we know not arranging practice sessions for the working class groups, do not make clear the relationships already existing in the groups they study.

The statistical analyses used by both Bernstein and Lawton in their "death penalty" studies are the subject of criticism by both Higgins (1976) and Coulthard (1969). Higgins points out that in both studies all subjects in each group were considered to be independent, whereas individual responses depend on those of other members of the group, thus, the total group must be the unit of analysis. Coulthard attacks the conclusions Bernstein draws concerning the use of a higher proportion of personal pronouns by the working class compared with the middle class.

"He (Bernstein) does not give individual figures but from the significance level it is possible to guess at the score. The result could have been achieved, at best by all the working class boys using fewer pronouns than 20% of the middle class, and half of the working class using fewer than 30% of the middle class; at worst three of the working class might have used fewer pronouns than any of the middle class. Such figures do not support the conclusions drawn." (Coulthard in Language in Education", O.U., p.98).

3.1.5 Functional Sentence Perspective: "Given-New" differences

A recent body of research based on Functional Sentence Perspective (F.S.P.) theory, and incorporating such concepts as "communicative dynamism" (C.D.), "theme-rheme", "topic-comment" or "Given-New" differences, enables us to give an alternative formulation of the problem articulated by some of the studies discussed above. Halliday (1974) defines "functional" in the context of FSP, as relating to "the analysis of the sentence into parts having a function in the total communication process", and Firbas (1974) elucidates the concept "C.D.". In the sentence :

"A girl came into the room"
(rheme-transition-theme)

the subject "A girl" is a newcomer to the scene (which is expressed by "into the room"). The adverbial element carries what Firbas calls "Known information", and is, therefore, contextually dependent. Elements that are thus contextually dependent and "Known" contribute least to the further development of the communication, and are described as having a lower "C.D." than "new" information. Firbas quotes an example involving the use of a pronoun. "An unknown man has asked him the way to the railway station". In this example the pronoun "him" is classified as thematic ("given" information), and functions as the "theme proper" of the utterance because it carries the very lowest degree of C.D. Taken out of context, the pronoun in the sentence (above) makes the statement inexplicit, but the use of a pronoun rather than a repetition of the name serves to direct the listener/reader to those parts of the statement that are new. New information is more important in terms of communication than information already known or "given". Thus it can be argued that pronouns, rather than being the poor relations in the communication business, are, appropriately used, a device whereby the encoder can take into consideration the needs of the decoder. Thus, it is possible by means of a study of the appropriateness of pronoun usage to turn on its head much of the argument concerning the so-called working class deficit. Such a study is the focus of chapter 5.

Haviland and Clark (1974) find evidence for what they call a "Given-New strategy" in comprehension, a process whereby the listener first searches memory for antecedent information that matches the sentence's given information and then revises memory by attaching the New information to that antecedent. Reporting the work of Brandsford and Johnson, Haviland & Clark quote a paragraph describing an unknown unidentified procedure. It was found that the paragraph was both better understood and better remembered when the topic "washing clothes" was attached. Without the topic, Brandsford and

Johnson argue, someone reading the paragraph has no way of constructing the intended antecedents of each sentence. This, surely, could also describe the position of the adult (middle class) experimenter eavesdropping on the conversations of children or adults of any class. If the experimenter isn't in the appropriate "ballpark" then the meaning of an utterance may be opaque at best. Hutchinson (1971, reported in Hornby, 1974) maintains that "presupposition can be employed correctly only when the speaker knows the presupposed proposition to be true, and also believes that his listener knows it to be true." Correct interpretation of pronouns in utterances can, therefore, be said to entail social sensitivity of some sophistication.

A more recent study by MacWhinney and Bates (1978) looks specifically at pronominalization, a sentential device whose use is determined by the Given-New distinction.

MacWhinney & Bates put forward the view that when a listener hears a pronoun, he attempts to relate it to "some information still in working memory for the situation." In some cases "working memory for the situation" must involve assumptions, experiences and knowledge shared by speaker and listener. "The increased use of both pronominalization and ellipsis ... can be viewed as evidence supporting a relation between the use of both devices and increases in givenness" (MacWhinney & Bates). Osgood (1971) and Delis and Slater (1977) provide experimental evidence to support the relation MacWhinney & Bates describe. Osgood noted that givenness evokes pronoun use, whilst Delis and Slater found that speakers used more ellipsis and pronomilization when their listeners were familiar with the subject matter than when they were not. MacWhinney & Bates themselves, in an experiment which used both children and adults and involved the description of pictures whose elements varied according to the degree of givenness or newness, found that pronoun use (personal

pronouns and deictic pronouns) was "only loosely tied" to givenness but they argue that pronomilization was partially masked by the frequent use of ellipsis.

Thus, it seems that the degree of familiarity between members of a group, and the topic of conversation or discussion are two factors likely to influence both the pattern and amount of pronoun usage in a given situation. It may be, then, that previous effects attributed to the use of a "restricted code" rather than an "elaborated" one on the basis of pronomilization can be reinterpreted in terms of affiliation and popularity of or familiarity with the topic of communication rather than in terms of socioeconomic class.

3.2 The Experiment

The design and method of the experiment, together with details of subjects and controls have been described in Chapter 2.

3.2.1 Prediction and Hypotheses

In Bernstein's 1962b study and in Lawton's replication, high incidence of pronoun usage is taken as an indicator of "restricted code" usage. Bernstein claims that this characteristic is associated with working class language. It may be argued that high pronoun usage is more likely to be a function of psychological factors such as the degree of affiliation between members of conversation groups, and the popularity of the topic of conversation. Indeed, Francis (1974) in her study of the speech of young middle class children found a significant difference between the frequency of use of nouns and pronouns according to context. Comparing language used in 3 contexts (monologue, social monologue and dialogue), she found that the more social contexts were found to elicit more pronouns particularly of the first and second person forms. Furthermore, as referred to above, Delis and

Slater (1977) found that speakers used more ellipsis and pronomilization when their listeners were familiar with the subject matter than when they were not. Thus, there is a base of empirical evidence to suggest that Bernstein's findings may be open to an alternative explanation.

The present study enables us to test these alternative sources of explanation one against the other. The three main variables studied were Topic, Affiliation and Class.

Hypothesised effects of variables in the study

1. Topic - The more popular topic is likely to increase pronoun usage. (There will be much shared information about the topic, even though participants may not be familiar to each other).

2. Affiliation - A high degree of affiliation is likely to increase pronoun usage. (Members of the group are well known to each other and liked by each other. There will be shared information concerning the participants).

3. Class - Effects previously attributed to socioeconomic class differences may be accounted for by variables (1) and (2), thus, we might expect there to be no significant class differences.

   Bernstein et al., would predict a higher rate of pronoun usage in working class groups.

Thus, accepting Bernstein's predictions for the present we might expect the popular topic, high affiliation working class group to use the greatest proportion of personal pronouns, and the unpopular topic, low affiliation middle class group to use the least.

3.2.2 Treatment of Results

All tapes of conversations were transcribed, and numbers of words in each conversation were counted. For this purpose, false starts and repetitions were excluded. Next were calculated the frequency of usage of personal pronouns[1] in general, the personal pronouns "I", "we", "you" and "they" individually, so-called Egocentric sequences ("I think") and Sociocentric sequences ("You know" or its Scottish equivalent "Ye ken")[2]. In order to effect comparisons between groups, proportions of the various pronouns and sequences in relation to either the total number of personal pronouns used or to the total number of words used were also calculated. Each conversation was treated as a single unit, not each participant in the group as in Bernstein (1962b).

3.2.3 Statistical Analysis

The original design of the experiment was such that a 2 x 2 x 2 ANOVA (Class x Affil x Pop) would have been an appropriate analysis for the comparisons of personal pronoun usage studies, and, similarly, a 4 factor 2 x 2 x 2 x 4 design with repeated measures on the last factor for the conversation profile study (Chapter 4) (Class x Affil x Pop x Stage in Convers.).

(1) Personal pronouns defined as :
I, we = those speaking (first person)
You = those spoken to (second person)
He, she, it, they = those spoken of (third person)
(After Fries, 1940).

(2) Occurrences of "you" meaning "one" were included in the totals. The universal meteorological operator "it", as in "it's raining" was not encountered.

However, for a variety of reasons, at the end of data collection, we were left with unequal cell frequencies. The original experimental design called for six observations per cell, but because of conditions some of which were probably related to the experimental variables, the completed experiment had between three and six observations per cell.

Reasons for unequal cell frequencies were as listed below.

1. Absences of one member of the triad (in MCL and WCH groups).
2. Omission of data due to inadequate length of conversation (less than 100 words) (Unp.topic only. WCH, WCL, and MCL groups).
3. Teacher entering the room early in recording (WCL, Unp.topic).
4. Breakdown in equipment (WCL, MCL groups).
5. Time made available by one school inadequate for all recordings to be made.

Reasons (3) and (4) are clearly not related in any way to the experimental variables, but reason (2) almost certainly is, as only unpopular topic conversations had to be omitted from the analysis due to extreme shortness in length. Reason (1) may or may not be related to the experimental variables, and reason (5) also may be not unrelated insofar as the recordings that went undone were those involving groups with members absent on the original days for recording.

Because of the suspected relationship between some reasons for unequal cell frequencies and the experimental variables, estimation techniques for equalising cell frequencies were not appropriate. Furthermore, there being such variety in the lengths of conversation (a range of 52 to 2045 words), a straightforward count of the frequency of occurrence of pronouns would not have made a meaningful comparison between

various conditions possible. In Bernstein's (1962b) study, his speech samples consisted of varying numbers of words following the first five minutes of discussion (between 958 and 4739 words analysed). For purposes of comparison, individual personal pronouns were converted into proportions of total personal pronouns used or of total words used. A similar procedure is adopted here.

Statistical analysis used

In view of the difficulties encountered (and discussed above) the use of a regression technique became appropriate in order to identify significant sources of variation. Thus, the problem was redefined as a regression problem.* This required that dummy variables be defined whose coefficents in a regression equation correspond to measures of the effect of each individual variable or combination of factors on a response variable. All potential variables were used in setting up the initial regression analysis, then Newton-Spurrell coefficients were used to identify the set of variables having the largest contribution to the between-treatment variation. (The standard regression programme Multreg was used which provided a print-out of the Newton-Spurrell coefficients. These coefficents were then used to construct an appropriate analysis of the data).

The regression relation was of the form:

$$y_k = \mu + \sum_{i=1}^{6} \alpha_i \; Z_{ik} + E_k$$

* This procedure was adopted on the advice of Dr P Fisk, Department of Statistics, University of Edinburgh.

where y = response variable

Z = effects, factors or combination of factors (this can take the value of +1 or -1. See note on levels of factors and coding device below).

μ = a constant

E = a constant

α = regression coefficient

Levels of factors and coding device

Since the levels of the factors are qualitative rather than quantitative (e.g. MC or WC, Hi affiliation or Lo, Pop. or Unp. topic) the regression was carried out "in terms of indicator variables representing the presence or absence of a treatment combination corresponding to a cell". (p.510 Winer, 1971). Table 3.2 shows the coding device used.

Referring back to the regression equation, it can be seen that when Zi equals -1 the value of α_i is subtracted from the constant and when Zi equals +1 the value of α_i is added to the constant u. Thus $2\alpha_i$ can be said to represent the difference in the level of the response variable arising from the difference between the two levels of factor i.

Levels of factors i, j and k given value of 1 or 2, are a convenience only and do not signify superiority or inferiority.

Construction of analysis from Newton-Spurrell coefficients

Part of a print-out of Newton-Spurrell coefficients is shown in Table 3.3. These coefficients refer to the total number of personal pronouns found in conversations to which analysis we shall return in 3.3.1. The percentage of variance explained by the independent variables is listed as 33.71% in this case. Each variable and combination of variables is shown in the

TABLE 3.2

Coding for Cells

Cell Classification Factors			y Response Variable	Effects & Interactions						
i	j	k		Z_0	Z_1	Z_2	Z_3	Z_4	Z_5	Z_6
1=Pop	1=Hi	1=WC		1	1	1	1	1	1	1
		2=MC		1	1	1	-1	1	-1	-1
	1=Lo	1=WC		1	1	-1	1	-1	1	-1
		2=MC		1	1	-1	-1	-1	-1	1
2=Unp	1=Hi	1=WC		1	-1	1	1	-1	-1	1
		2=MC		1	-1	1	-1	-1	1	1
	2=Lo	1=WC		1	-1	-1	1	1	-1	-1
		2=MC		1	-1	-1	-1	1	1	1

Where Z_0 = Constant
Z_1 = Popularity)
Z_2 = Affiliation) Main effects
Z_3 = Class)
Z_4 = Popularity/Affiliation)
Z_5 = Popularity/Class) Interactions
Z_6 = Affiliation/Class)

Factor i = Popularity of topic with values ascribed arbitrarily thus

Pop = 1
Unp = 2

Factor j = Affiliation of members of triad

Hi = 1
Lo = 2

Factor k = Socioeconomic class of triads

WC = 1
MC = 2

TABLE 3.3

Newton-Spurrell Coefficients

	VAR	COEFF	SE(COEFF)	T-STAT
TOTAL PERSP	1 IS THE DEPENDENT VARIABLE			
POPULARITY	6	3.22870	1.75880	1.84
AFFIL	7	5.06257	1.66205	3.05
CLASS	8	4.13581	1.50912	2.74
POP-AFFIL	9	-4.27153	1.81744	-2.35
POP-CLASS	10	-1.15273	1.51886	-0.76
AFFIL-CLASS	11	-2.72151	1.37267	-1.98
	CONST	36.05274	1.62214	22.23

DEGREE OF FREEDOM	RESIDUAL SUM SQUARES	RESIDUAL MEAN SQUARE
29	1669.48339	57.56839
F=	2.45838 P=	0.04803
R= 0.5806	33.71% EXPLAINED	

```
OPERATION: ALLELE

     SUMS OF SQUARES
TOTAL      =  2518.634593
RESIDUAL   =  1669.483394
REGRESSION =   849.151200

DEPENDENT VARIABLE     1

    ELEMENTS        VARIABLES
  194.001516         6
  534.113271         7
  432.374384         8
  318.001694         9
   33.159218        10
  226.295312        11
 -180.926977         6    7
 -152.240337         6    8
 -157.736731         6    9
  -33.059104         6   10
 -107.890775         6   11
 -247.814611         7    8
 -297.689174         7    9
  -29.524730         7   10
 -129.342233         7   11
 -226.029973         8    9
  -16.554870         8   10
 -113.626435         8   11
  -26.066333         9   10
 -125.323894         9   11
  -24.854260        10   11
  139.165803         6    7    8
  150.563002         6    7    9
   38.887961         6    7   10
   95.690188         6    7   11
  125.169014         6    8    9
   52.627528         6    8   10
   78.639196         6    8   11
   42.671893         6    9   10
   85.583068         6    9   11
   24.932800         6   10   11
  205.809027         7    8    9
   71.671245         7    8   10
   77.549323         7    8   11
   35.867968         7    9   10
  111.205572         7    9   11
   31.405200         7   10   11
   66.152268         8    9   10
   86.376323         8    9   11
   35.676597         8   10   11
   28.784977         9   10   11
 -117.990830         6    7    8    9
  -55.768966         6    7    8   10
  -62.530426         6    7    8   11
  -43.668479         6    7    9   10
  -79.166312         6    7    9   11
  -28.230346         6    7   10   11
  -52.639337         6    8    9   10
  -64.193861         6    8    9   11
  -32.125813         6    8   10   11
  -27.905127         6    9   10   11
  -70.644401         7    8    9   10
  -71.232368         7    8    9   11
  -32.640818         7    8   10   11
  -30.901207         7    9   10   11
  -35.096535         8    9   10   11
   52.493556         6    7    8    9   10
   57.142653         6    7    8    9   11
   28.952628         6    7    8   10   11
   27.752957         6    7    9   10   11
   30.178243         6    8    9   10   11
   31.789743         7    8    9   10   11
  -28.122666         6    7    8    9   10   11

SUM OF ELEMENTS OUTPUT =   849.151200

OPERATION: STOP

COMMAND: QUIT
CONSOLE DISCONNECTED  08/09/78 11.04.37
```

right hand column, culminating in the combination of all six variables. The left hand column lists "elements" (contributions to the total sums of squares) attributable to each variable and combination. In order to ascertain the actual proportion of variance attributable to say, variable 8, all elements containing variable 8 as well as that for 8 itself must be summed. Having completed this operation, it is then possible to construct a further table showing combinations of variables and the sum of elements attributable to each in order of importance, together with this sum as a percentage of all elements output. The table constructed from these coefficients may be seen on page 68 (Table 3.4(b)).

It can be seen clearly from Table 3.4(b) that variables 7 and 8 are consistently present, and that both are necessary in order to prevent the percentage of the attributable variance falling to an unacceptably low level. Thus, in this particular analysis, variables 7 and 8 appear as the most important of the independent variables. Variable 9, also, does not "disappear" until low in the table, and is, thus, making a greater contribution to the attributable variance than variables 6, 10 or 11. Variable 10, shows a total of 5 in the variables column, and thus is least influential of all independent variables in this instance. A "discontinuity", or large drop in the sum of elements output seems to be associated with the withdrawal of variables 6 and 11.

Levels of significance associated with percentages of variance explained

In order to ascertain which percentages of variance explained may be regarded as significant, a computation involving the multiple R (coefficient of multiple correlation) was carried out. Each Newton-Spurrell analysis provided such an R value. The relationship between the multiple R and the percentage of variance explained by the independent variables is such that

R^2 x 100 = percentage explained. (Guildford and Fruchter, 1978).

For example in Table 3.3 the value of R = 0.5806, and the percentage explained is 0.5806^2 x 100 = 33.709636 = 33.71%.

For small sample (N < 100) a correction formula must be applied to the R value before significance levels for the coefficients of multiple correlation can be ascertained. Guildford and Fruchter give this formula as :

$$cR^2 = 1 - (1 - R^2) \frac{N - 1}{N - m}$$

where N = number of cases in sample correlated
m = number of variables correlated
N - m = number of degrees of freedom, one degree being lost for each mean, there being one mean per variable.

In order to identify a cut-off point below which the percentage of explained variance was not significant, coefficients of multiple correlation significant at the .05 and .01 levels were taken from a table of R values (p.533, Guilford and Fruchter, 1978). The correction formula (above) was then applied, and the cR value then converted into a percentage.

The calculation using values appropriate to the analysis carried out here is shown below.

From the information applicable to this analysis

N - 1 = 34 (there being 35 conversations in all)
N - m = 29 (there being 6 independent variables in the analysis)

From the table, given 29 degrees of freedom

$$R = .552 \text{ at } .05 \text{ level}$$
$$R = .625 \text{ at } .01 \text{ level}$$

Thus

$$R^2 \text{ (.05 level)} = 0.3047$$
$$R^2 \text{ (.01 level)} = 0.3906$$

Applying the correction formula

$$_{(.05 \text{ level})}cR^2 = 1 - (1 - .3047)\frac{(34)}{(29)}$$

$$= 0.1848$$

Thus, the critical percentage explained at the .05 level is 18.48%. The critical percentage at the .01 level is similarly calculated to be 28.55%.

First and Second Recordings

Since there was a strong possibility that the affiliation variable would influence the dependent variable to a greater extent in first recorded conversations than in those recorded second, it was planned to analyse first and second conversations separately. Differences between the two due to subtle changes in affiliation may, thus be confounded with order effects. However, the benefits of treating the second recordings as a "replication" were felt to outweigh this disadvantage.

3.3 Results

3.3.1 Total personal pronoun usage

The means and standard deviations for the 8 groups are shown in Table 3.4(a). No clear picture emerges with respect to the relative importance of the independent variables as predictors of the results obtained.

The analysis of data constructed from the Newton-Spurrell coefficients (Table 3.4(b)) also suggests that it is impossible to eliminate any variable with certainty, though variables 10 (the Pop-class interaction), 11 (Affil-class interaction) and 6 (Pop) do not appear to make significant contributions to the 33.71% of the variance attributable to the effects of the variables and interactions manipulated in this study. It appears that variables 7 (Affil) and 8 (class) make significant contributions with variable 9 (Pop-Affil interaction) also contributing.

3.3.2 "I" as a proportion of total personal pronouns used

The means and S.D.'s of the % ages of the occurrences of the first personal pronoun "I" are shown in table 3.5(a). By inspection of this table it appears that, in this case both popularity of topic and social class may be influencing the pattern of usage of the personal pronoun "I".

Table 3.4(a)

Total Personal Pronouns: Average % Age use
Means and Standard Deviations

Popular Conversation

	Working Class		Middle Class	
	Hi Affil.	Lo Affil.	Hi Affil.	Lo Affil.
x	10.08	10.59	10.06	9.02
S.D.	2.11	1.12	0.57	1.20
	(N=5)	(N=4)	(N=5)	(N=4)

Unpopular Conversation

x	11.09	8.97	9.94	11.11
S.D.	0.69	1.74	1.50	2.51
	(N=4)	(N=4)	(N=5)	(N=4)

Table 3.4(b)

Total Personal Pronouns Newton-Spurrell Coefficients

33.71% explained

Variables	Elements	% Age
6 7 8 9 10 11	849.1512	100
6 7 8 9 * 11	815.99199	96.10
* 7 8 9 10 11	655.14969	77.15
* 7 8 9 * 11	655.04958	77.14
6 7 8 9 10 *	622.85589	73.35
6 7 8 9 * *	614.55094	72.37
		------
* 7 8 9 10 *	536.74515	63.21
* 7 8 9 * *	536.5665	63.19
6 7 8 * 10 11	531.14951	62.55
6 7 8 * * 11	514.05663	61.72
* 7 8 * * 11	485.17183	57.14

Totals
6 11 11 8 5 7

6 Popularity, 7 Affiliation, 8 Class, 9 Popularity-Affiliation,
10 Popularity-Class, 11 Affiliation-Class

--------- Discontinuity (large fall in sums of elements output associated with withdrawal of (a) particular variable(s)).

Table 3.5(a)

"I" as a % age of total personal pronouns
Means and Standard Deviations

Popular Conversation

	Working Class		Middle Class	
	Hi Affil.	Lo Affil.	Hi Affil.	Lo Affil.
x	31.03	33.58	40.57	43.21
S.D.	9.73	18.53	20.70	11.66
	(N=5)	(N=4)	(N=5)	(N=4)

Unpopular Conversation

x	24.91	15.13	24.57	36.86
S.D.	2.92	18.47	11.91	28.56
	(N=4)	(N=4)	(N=5)	(N=4)

Table 3.5(b)

"I" as a proportion of total No. of Personal Pronouns used:
Newton-Spurrell Coefficients

22.25% explained

Variables	Elements	% Age
7 8 9 10 11 12	2127.1705	100
7 8 9 10 * 12	2126.7365	99.98
7 8 9 * 11 12	2126.1832	99.95
7 8 9 * * 12	2125.6633	99.93
7 * 9 10 11 12	2093.4963	98.42
7 * 9 10 * 12	2093.2398	98.40
7 * 9 * 11 12	2087.4957	98.13
		------
7 8 9 10 11 *	1977.0960	92.94
7 8 9 10 * *	1976.8149	92.93
7 8 9 * 11 *	1976.3541	92.91
7 * 9 10 11 *	1935.2585	90.98
-------		-----
7 * * 10 11 *	1351.7683	63.55

Totals
12 7 11 8 8 7

7 Popularity, 8 Affiliation, 9 Class, 10 Popularity-Affiliation, 11 Popularity-Class, 12 Affiliation-Class

22.25% variance is explained by the independent variable and we find that the analysis of the Newton-Spurrell coefficients also points to the importance of these two variables (variable 7 (Pop) and variable 9 (class), see table 3.5(b)). These two variables, together with any two of the remaining four variables can account for over 90% of the attributable variance. A simple grouping of data, see table 3.5(c), combining Hi and Lo affiliations (affiliation here does not appear to make a significant contribution) shows both a higher % age of pronouns when conversations were about a popular topic (WC Pop x = 32.30, MC Pop x = 41.77 compared with WC Unp. x = 20.02, MC unp x = 29.84), and an overall higher % age of use by middle class boys.

Table 3.5(c)

"I" as a % of Personal Pronouns used

	Working Class	Middle Class
Pop x	32.30	41.77
Unp x	20.02	29.84

3.3.3 "You" and "They" as a proportion of total personal pronouns used

Table 3.6(a) shows the means and the S.D.'s of the % age occurrence of the personal pronouns "you" and "they". The means for the 8 groups suggests that a simple clear cut replication of Bernstein's findings (namely a higher proportion for working class groups) has not been achieved. As before in the present study, there appear to be differences in the proportions of usage due to topic popularity and affiliation factors (possibly interacting).

Table 3.6(a)

"You" and "They" as a % age of Total Personal Pronouns: Means and Standard Deviations

Popular Conversation

	Working Class		Middle Class	
	Hi Affil.	Lo Affil.	Hi Affil.	Lo Affil.
x	48.79	29.53	44.12	36.18
S.D.	9.18	10.53	17.06	18.38
	(N=5)	(N=4)	(N=5)	(N=4)

Unpopular Conversation

x	30.86	32.11	29.37	42.75
S.D.	15.56	20.32	6.62	18.36
	(N=4)	(N=4)	(N=5)	(N=4)

Table 3.6(b)

"You" and "They" as a proportion of Total No. of Personal Pronouns used: Newton-Spurrell Coefficients
23.92% explained

Variables	Elements	% Age
7 8 9 10 11 12	1792.7705	100
7 8 9 10 * 12	1767.5172	98.59
7 8 * 10 11 12	1731.5586	96.59
7 8 * 10 * 12	1720.9853	96.00
7 * 9 10 11 12	1714.5084	95.63
7 * 9 10 * 12	1686.8455	94.09
7 * * 10 11 12	1644.6916	91.74
7 * * 10 * 12	1633.3325	91.11
--		-----
* 8 9 10 11 12	1516.6429	84.60
7 8 9 10 11 *	1508.1676	84.12
* 8 9 10 * 12	1500.5429	83.70
7 8 9 10 * *	1484.7870	82.82
* 8 * 10 11 12	1462.0358	81.55
7 8 * 10 11 *	1450.1227	81.45
* 8 * 10 * 12	1456.6392	81.25
7 8 * 10 * *	1449.3829	80.85
* * 9 10 11 12	1445.8678	80.65
7 * 9 10 11 *	1444.8746	80.59
* * 9 10 * 12	1427.8110	79.65
7 * 9 10 * *	1419.3583	79.17
7 * * 10 11 *	1389.5937	77.51
* * * 10 11 12	1383.4285	77.17
* * * 10 * 12	1377.4249	76.83
* 8 9 10 11 *	1225.6465	68.37
* 8 9 10 * *	1211.1441	67.56
Totals		
15 14 14 25 13 16		

7 Popularity
8 Affiliation
9 Class
10 Popularity/ Affiliation
11 Popularity/ Class
12 Affiliation/ Class

-------- Discontinuity (large drop in sum of elements associated with the removal of a variable).

The regression analysis confirms this suggestion of P-A interaction (see table 3.6(b)), and shows that variable 10 (P-A) makes a major contribution to the 23.92% variance attributable to the independent variables. It is also clear that variables 7 (Pop) and 12 (A-C interaction) make a contribution to this variance. The influence of variable 7 (Pop) is confirmed by a clear disconuity in the sums of elements column at the first "disappearance" of variable 7.

3.3.4 "We" as a proportion of total personal pronouns used

The present study found the pattern of usage of this pronoun illustrated in table 3.7(a). By inspection of the means for the 8 groups, the greatest influence on the usage of "we" seems to be the popularity of the topic of conversation, with, perhaps, some influence from the interaction between Affil and Pop.

The analysis of data constructed from the Newton-Spurrell coefficients once again shows that variable 7 (Pop) plays a major role. (See Table 3.7(b)). This variable alone accounts for 72% of the 50.37% of variance explained (36.27% overall). Other variables appear to be almost equally unimportant as determiners of the pattern of usage of the personal pronoun "we", though it should be noted that variable 9 (class) is last of the remaining five to be omitted.

3.3.5 Egocentric sequences as a proportion of total words used

The pattern of usage of egocentric sequences over the 8 groups is shown in the table of means and standard deviations (Table 3.8(a)). Again the degree of popularity of the topic of conversation appears to be the most important factor in the pattern of usage of egocentric sequences. It is also clear than any socioeconomic class differences are in the opposite direction to that predicted by Bernstein.

Table 3.7(a)
"We" as a % of total personal pronouns: Means and Standard Deviations

Popular Conversation

	Working Class		Middle Class	
	Hi Affil.	Lo Affil.	Hi Affil.	Lo Affil.
x	5.44	14.06	6.92	11.34
S.D.	6.49	16.81	5.50	9.34
	(N=5)	(N=4)	(N=5)	(N=4)

Unpopular Conversation

x	32.23	38.66	28.43	13.72
S.D.	10.20	18.10	12.78	17.85
	(N=4)	(N=4)	(N=5)	(N=4)

Table 3.7(b)

"We" as a proportion of Total No. of Personal Pronouns
Newton-Spurrell Coefficients

50.37% explained

Variables	Elements	% Age
7 8 9 10 11 12	3990.1877	100
7 * 9 10 11 12	3980.8211	99.77
7 8 9 10 11 *	3751.7518	94.02
7 * 9 10 11 *	3746.7439	93.90
7 8 9 * 11 12	3742.6745	93.80
7 * 9 * 11 12	3693.4108	92.56
7 8 9 10 * 12	3640.2739	91.23
7 * 9 10 * 12	3627.6480	90.91
7 8 * 10 11 12	3556.6105	89.13
7 * * 10 11 12	3538.2408	88.67
7 8 9 * 11 *	3498.6990	87.68
7 * 9 * 11 *	3460.1306	86.72
7 8 9 * * 12	3426.7785	85.88
7 8 9 10 * *	3408.2776	85.42
7 * 9 10 * *	3400.7821	85.23
7 * 9 * * 12	3374.4693	84.57
7 8 * 10 * 12	3356.5471	84.12
7 8 * 10 11 *	3350.7384	83.97
7 * * 10 11 *	3338.6506	83.67
7 * * 10 * 12	3336.6017	83.62
7 8 * * 11 12	3325.8574	83.35
7 8 9 * * *	3189.3803	79.83
7 8 * 10 * *	3159.0496	78.94
7 * 9 * * *	3147.9956	78.89
7 * * 10 * *	3136.6828	78.6
7 8 * * 11 *	3114.3766	78.05
7 * * * 11 12	3104.6055	77.81
7 * * * 11 *	3060.5711	76.70
7 8 * * * 12	2937.0856	73.61
7 * * * * 12	2925.9275	73.33

Totals
30 15 16 16 16 15

7 Popularity
8 Affiliation
9 Class
10 Popularity/ Affiliatio
11 Popularity/ Class
12 Affiliation/ Class

Table 3.8(a)

Egocentric sequences as a % age of total words:
Means and Standard Deviations

Popular Conversation

	Working Class		Middle Class	
	Hi Affil.	Lo Affil.	Hi Affil.	Lo Affil.
x	0.90	0.31	0.42	0.25
S.D.	0.84	0.07	0.59	0.24
	(N=5)	(N=4)	(N=5)	(N=4)

Unpopular Conversation

x	1.16	0.50	1.12	3.16
S.D.	0.88	0.50	1.03	3.97
	(N=4)	(N=4)	(N=5)	(N=4)

Table 3.8(b)

Egocentric sequences as % age of total words:
Newton Spurrell Coefficients

29.87% explained

Variables	Elements	% Age
7 8 9 10 11 12	0.001878	100
7 * 9 10 11 12	0.001856	98.83
7 8 * 10 11 12	0.001675	98.19
7 * * 10 11 12	0.001661	88.45
7 8 9 * 11 12	0.001620	86.24
7 * 9 * 11 12	0.001619	86.21
7 8 9 10 11 *	0.001530	81.74
7 * 9 10 11 *	0.001497	79.71
7 * * * 11 12	0.001430	76.14
7 8 * * 11 12	0.001429	76.09
7 8 9 10 * 12	0.001420	75.61
7 * 9 10 * 12	0.001403	74.71
7 8 * 10 11 *	0.001354	72.10
7 8 * 10 * 12	0.001331	70.87
7 * * 10 11 *	0.001328	70.71
7 * * 10 * 12	0.001319	70.23

Totals
16 8 8 12 12 12

-------- Discontinuity

7 Popularity, 8 Affiliation, 9 Class, 10 Popularity/Affiliation, 11 Popularity/Class, 12 Affiliation/Class

The multiple regression analysis (see Table 3.8(b)) indicates that 29.87% of the variance within this experiment is attributable to the independent variables. To this percentage, variable 7 (Pop) makes a vital contribution and provided that any two from the trio of interactions 10 (P-A), 11 (P-C) and 12 (A-C) are also included in the sum of elements output, a very large portion of this accountable variance may be explained. (For example, the variables 7 (Pop), 11 (P-C) and 12 (A-C) together account for 76.14% of the 29.8% variance explained (22.74% of the variance overall). Social class (variable 9) as such, appears to be of no direct importance as an independent variable. Neither, in this case does variable 8 (Affil). Grouping the data so as to take no account of social class and affiliation as variables, it is to be noticed that the proportion of egocentric sequences in popular conversations is 0.28% compared with 0.73% in unpopular conversations.

3.3.6 Sociocentric sequences as a proportion of total words used

The means and S.D.'s of the % age usage of sociocentric sequences for the 8 groups is shown below in table 3.9(a). Table 3.9(a) gives no very clear indication of the relative importance of our independent variables, but does show that any differences attributable to socioeconomic class are again likely to be in the opposite direction to that found by Bernstein.

The multiple regression analysis (see Table 3.9(b)) indicates that 21.74% of the variance can be explained by the independent variables. Towards this 21.74%, variable 10 (P-A interaction) makes a large contribution (58-82% of the accountable variance is carried on this variable alone). Again, there is no evidence to suggest the influence of socioeconomic class as a major single variable.

Table 3.9(a)

Sociocentric sequences as a % age of total words used: Means and Standard Deviations

Popular Conversation

	Working Class		Middle Class	
	Hi Affil.	Lo Affil.	Hi Affil.	Lo Affil.
x	0.15	0.04	0.23	0.08
S.D.	0.18	0.06	0.30	0.16
	(N=5)	(N=4)	(N=5)	(N=4)

Unpopular Conversation

x	0	0.24	0.07	0.50
S.D.	0	0.4	0.08	0.83
	(N=4)	(N=4)	(N=5)	(N=4)

Table 3.9(b)

Sociocentric sequences as % age of total words: Means and standard deviations

21.74% explained

Variables	Elements	% Age
7 8 9 10 11 12	0.000068	100
7 8 9 10 11 *	0.000067	98.53
7 8 9 10 * 12	0.000066	97.06
7 8 9 10 * *	0.000065	95.59
* 8 9 10 11 12	0.000063	92.65
* 8 9 10 11 *	0.000062	91.18
* 8 9 10 * 12	0.000061	89.71
* 8 9 10 * *	0.000060	88.24
7 8 * 10 11 12	0.000057)	83.22
7 8 * 10 * 12	0.000057)	
7 * 9 10 11 12	0.000056)	
7 8 * 10 11 *	0.000056)	82.35
7 8 * 10 * *	0.000056)	
7 * 9 10 11 *	0.000055	80.88
7 * 9 10 * 12	0.000054	80.60
7 * 9 10 * *	0.000053	77.94
* 8 * 10 11 12	0.000052)	76.46
* 8 * 10 * 12	0.000052)	
* * 9 10 11 12	0.000051)	75.00
* 8 * 10 11 *	0.000051)	
* 8 * 10 * *	0.000051)	
* * 9 10 11 *	0.000050	73.53
* * 9 10 * 12	0.000049	72.06
* * 9 10 * *	0.000048	70.59
7 * * 10 11 12	0.000046)	67.65
7 * * 10 * 12	0.000046)	

7 Popularity
8 Affiliation
9 Class
10 Popularity/ Affiliation
11 Popularity/ Class
12 Affiliation/ Class

Totals
14 16 16 26 13 14

3.3.7 Results Summary Table

Table 3.10

Important variables in the pattern of usage of personal pronouns

	Major importance	Secondary importance
Total pers.pros.	Affil & Class	P-A interaction
I	Pop and Class	
You - They	P-A	A-C & Pop
We	Pop	
Ego Seqs.	Pop	P-A, P-C & A-C
Socio Seqs.	P-A	Affil, class

3.4 Discussion

It has been suggested that pronoun usage provides a clue as to the stage of language development of an individual, and Symonds & Daringer (1930) found that pronouns (with an adequate reference) were used at a high rate by all subjects until about the age of 15 years. All the boys in the present study (mean age 12.73 years) therefore might be expected to have a high rate of pronoun usage. Studies where socioeconomic class has been interpreted as an important variable affecting pronoun usage have implicitly or explicitly made negative value judgements regarding the prevalence of pronouns in conversations or discussions or in written work, possibly influenced by this association between low pronoun usage and age. An alternative view of pronoun usage is possible and the present study had two objectives, (1) to investigate links between factors such as affiliation of group members and topic of conversation and pronoun usage, and (2) to look further into ways in which pronoun usage may enhance communication.

First of all, however, we must relate the findings of the present study to those of Bernstein and his colleagues. The present study gives little support for Bernstein's by now familiar pattern of working class preference for personal pronouns in general and "you" and "they" in particular, his finding of relatively more frequent working class use of sociocentric sequences, and middle class preference for "I" and egocentric sequences. Whilst the tremendous variety and variability between groups due to uncontrolled factors such as individual differences (evidenced by the relatively low % ages of variance explained in the multiple regression analysis) makes any conclusion tentative, it can be seen that the present study suggests strongly that familiarity with either people or topic has a greater influence on pronoun use than does socioeconomic class. Only in the case of the total number of personal pronouns used, and the incidence of the first person singular "I" is class listed as one of the most important variables. (See results summary table p.77). Even in these two cases, popularity and affiliation make an equally important contribution.

Thus it can be seen that support from the present study for any class differences of the type found by Bernstein comes from only two quarters (total personal pronouns and "I"). "I" in this study included also the occurrence of "I" in egocentric sequences ("I think"). The analysis of egocentric sequence usage (see 3.3.5) suggested that the popularity of topic was the most influential of our independent variables. Social class differences were <u>not</u> found to be significant. "I" in egocentric sequences as a proportion of the total number of "I's" was roughly 22%, thus it is not surprising that variable 7 (Pop), the most important influence on egocentric sequence usage, again appears to be important with regard to the use of "I". It is possible that exclusion of these "egocentric I's" from the total of first person singular pronouns would result in a decreased influence of the

popularity variable 7, and an associated increase in importance for the class variable. Certainly, the inability to find a class difference in use of egocentric sequences, and the inclusion of "egocentric I's" in the "I" total strengthens the suggestion that, with respect to the pronoun "I" there are social class differences as Bernstein predicts.

If egocentric sequences are, as Bernstein suggests (1962b) measures of uncertainty (and our analysis which associates higher egocentric usage with an unpopular topic of conversation supports this claim), then it is all the more surprising to find that, in the analysis of the use of the pronoun "I" (including the egocentric sequences "I think"), more frequent usage appears to coincide with the popular topic.

The question that still remains concerns the popular linking of the use of the first person singular pronoun with what may be termed "ego or personality development". In the present study, as Bernstein found, middle class boys use this form more frequently than their working class counterparts. If, indeed, this is suggestive of greater "ego consciousness" or better personal adjustment, then such a difference should show up on a personality inventory. The results of such an investigation are reported in Chapter 7.

Similarly, the question of total personal pronoun use requires further investigation. Whilst socioeconomic class did not emerge unambiguously as the most influential variable, it did appear to play some part.

Bernstein claims that in his transcripts, the pronoun "they" is used as a general label (more frequently by the working class boys) when referents are not finely differentiated and are non-specific. This he argues, suggests "some implicit agreement about the referent", Bernstein 1974, (p.110). Such

non-specificity does not seem to be a feature of this study. A further analysis of pronouns in general, in terms of direction of reference was carried out, the results of which analysis are reported in Chapter 5.

It is curious that Bernstein does not look into the use of the pronoun "we". If, as he argues, the degree of restriction of code affects the probability of the use of "I" ((working class) restricted code users have a reduced "verbal differentiation of self" and therefore use this pronoun less than the (middle class) elaborated code users) and if the restricted code is generated by a sense of "we-ness", then it is likely that there will be a working class "advantage" in the use of the pronoun "we". In the present experiment, use of the pronoun "we" seems to be more a function of topic than of socioeconomic class (being more frequently used in unpopular conversations about Devolution), though there is a slight indication of a possible Pop-class interaction in the table of means and standard deviations (Table 3.7(a), p. 73). "We", involving as it does the idea of cooperation and identification with a group has been found to come into usage rather later than the first person pronoun group (Goodenough, 1938), and as such may be associated with a greater degree of social development. On the other hand the "we-ness" of which Bernstein speaks may, by implication at least, be seen as a limit to the "elaboration of the communication". Thus, in one case "we" (being an index of social development and therefore a desirable feature) may be positively evaluated. The use of "we" could also be associated with the restricted code in that it can act as a deterrent to elaboration. By this token "we" becomes an undesirable feature and negatively evaluated. It is therefore possible to construct two competing hypotheses with respect to the use of "we", and it is perhaps for this reason that "we" has not featured prominently in any analyses of grammatical elements.

It can be seen that the present study provides considerable support for the view that situational elements can predict pronoun usage rather better than socioeconomic class. Bernstein himself admits that the topic of discussion may have affected some of the measures taken, though it is not clear in what way he sees this as happening. He argues that "the working class may have tended to identify with the criminal and the middle class with law and principles of justice", (p.116), though it is by no means certain how this may be relevant or indeed if it is relevant at all. Robinson (1965) also considers the effects of topic, and postulates that "if the working class subjects knew less about the topic, it is possible that their failure to use an 'elaborated' code was a consequence of having less to say rather than no means to say it". Robinson goes on to suggest that perhaps a topic about which working class boys were better informed would have diminished the differences between the groups. The importance of the topic of conversation has been illustrated by the results of the present study.

Total use of personal pronouns is the one category in the present study where degree of popularity of topic does not appear to play a direct role. It is possible that overall we have two opposing tendencies throughout the groups. The first of these is towards a more explicit form of speech ("elaborated" code variety with possibly fewer pronouns) due to the more formal nature of an unpopular topic, and the second towards a more "restricted" code variety due to having small amounts of relvant information concerning the unpopular topic available.

Popular topics can also give rise to elliptical, inexplicit conversations, as evidenced by the following example.

Example A

Aye good team though ... won the premier league ... yet again ...
Yeah well ...
canny help it
Ah well
See tha' Hearts 're relegated ...
Aye (laughs)
The' deserved it (laughs)
(Indecipherable remark)
Has he changed th'n?
Ah d'ny ken ...

The conversation of which example (A) is a part displays many characteristics of an "unanalysable" conversation listed by Rutherford (1976), namely it is inexplicit, vague in reference, repetitive, elliptical, stereotyped in vocabulary and unorganised in syntax. The conversation is on the subject of "sport" and Celtic are the "good team". Rutherford argues that such an "unanalysable" conversation is intended to prevent adult onlookers from explicitly understanding the feeling expressed, and to allow peer group members to share in it. (I was present though aiming at unobstrusiveness). "'Unanalysability' is a remarkably effective way of keeping cave by an apparently shabby device", (Rutherford, 1976). The boys taking part in the conversation (above) were a middle class low affiliation group.

Example B

I think maybe we should ge' it (independence) but not Wales ... they can't support themselves
They're too small a country
Yeh

Scotland's not exactly massive
Yes (It is..... Scotland's got a lot more sea
(It's bigger than Wales
to it
In some ways in some ways but wha' bout Scotland
it can't grow everything

The conversation of which example (B) is a part is clearly more explicit and "analysable" than example (A), though the topic of conversation was the unpopular "Independence for Scotland". The boys formed a middle class high affiliation group. It should be noted that the proportions of pronouns used in the two conversations is remarkably similar.

An example of part of an elliptical conversation where the participants have little to say (other than they have little to say!) is given in Example (C). The speakers are a working class low affiliation group.

Example C

(Giggles) ... um ... I don't know anything about it
Na' idea ...
Scotland is independent
Nah 'snot
Is
'Snot
'S part (a
(ah it's
(Wales 'n England ...
Scotland actually

Differences in pronoun usage due to familiarity of group members one with another did not emerge clearly in this study except in the context of total personal pronoun usage and in two interactions (see results summary table, table 3.10).

Sensitivity to affiliation patterns and subsequent changes in affiliation within groups, as measured by pronoun usage over time, is the subject of the next chapter.

Finally, it is necessary to return to the question of the function of pronoun use in general. Does the use of pronouns restrict possibilities, indicate a "lack of specification", and demonstrate imprecision as has been suggested, or can it be seen as a sensitive linguistic device whereby listeners and/or readers may be directed to new information in utterances and statements? The results of the present investigation are suggestive of the importance of familiarity with the topic of conversation of the group members, and can be seen to give no support to the former position. Conversations rich in pronoun use do not appear to be also characterised by questions from group members demanding clarification. Pronoun use in example (A) for example, may seem to an outsider (including the experimenter) to be lacking in specification and precision and at best to be opaque in meaning, but the question "Has he changed then?" is followed by the reply "Ah d'ny ken", not by a request for clarification such as "Has <u>who</u> changed?" or "What do you mean?". Kieras (1978) claims, "An important common property of all of the high-level organisational conventions is that they are based on the reader's <u>expectations</u> about the content, or organisation of the content of the passage. If these expectations are applicable, comprehension becomes only a matter of 'filling in the slots' in the schema or frame. We shall return to this topic in Chapter 6.

It is now clear that variables which Bernstein failed to control for are important factors in the distribution of the elements he investigated in his analysis.

3.5 A "Replication" Experiment

Since the analysis of unbalanced data and the difficulties posed by the data in this study was likely to give rise to results that are not clearcut, it was planned to analyse the second recorded conversations separately, thus treating them as a kind of replication. If the patterns in the analyses were found to be reasonably stable, then this would strengthen the original findings. However, any effect of the variable affiliation in the analyses of percentages of the various individual personal pronouns would be likely to be reduced since in the second recorded conversations no group was of truly low affiliation (each group having spent some time together making the first recording). Thus, we may expect some slight modification in the results of our analyses of the pronouns "you" and "they" (where the interaction of P-A was found to be important) and in the usage of sociocentric sequences (where P-A appears to be similarly important). The total personal pronouns analysis should also show some modification due to the importance there of the variable "Affiliation".

3.5.1 Results

Total Personal Pronouns

This time the regression analysis indicated that only 10.54% of the variance is explained by the independent variables thus the N.S. analysis was not pursued further.(1)

(1) Levels of significance associated with percentages of variance explained, given 30 degrees of freedom, are 17.98% at the .05 level, and 27.89% at the .01 level.

"I" as proportion of personal pronouns

The table of means and standard deviations (Table 3.11(a)) suggests that popularity of topic may be the most powerful influence on the usage of the pronoun "I". The regression analysis (Table 3.11(b)) indicates that 23.50% of variance is explained, but from this analysis it appears that no one variable is making a single critical contribution. One of the two variables 7 (Pop) or 12 (A-C) is vital, plus 10 (P-A) and/or 8 (Affiliation).

"You" and "They" as a proportion of personal pronouns

Means and standard deviations (Table 3.12(a)) indicate possible interactions between the variables Class, Affiliation and Popularity of topic. The regression analysis confirms that variable 12 (A-C) makes the most important contribution to the 38.02% of variance explained by the independent variables (See Table 3.12(b)). Variable 10 (P-A) is also seen to be important in that there is a large drop in the sum of elements output when this variable is removed. Furthermore, at least three other variables need to be present alongside variable 12 (A-C) after the "removal" of variable 10 (P-A). Although variable 9 (Class) does not make a large contribution to the variance, there is another large drop in the sum of elements output associated with the removal of this variable too. The variable found to be important in the first conversation analysis was the P-A interaction, with the A-C interaction and Pop. also important. Thus, again, there is seen to be considerable similarity between the results of the two analyses.

Table 3.11(a)

"I" as a percentage of total personal pronouns: Means and Standard Deviations ("Replication")

Popular Conversation

	Working Class		Middle Class	
	Hi Affil.	Lo Affil.	Hi Affil.	Lo Affil.
x	25.2	25.60	34.90	16.40
S.D.	14.60	17.13	9.61	9.47
	(N=4)	(N=4)	(N=4)	(N=5)

Unpopular Conversation

x	21.70	24.32	17.90	17.10
S.D.	4.38	16.02	9.32	7.37
	(N=4)	(N=5)	(N=5)	(N=5)

Table 3.11(b)

"I" as a Proportion of total personal pronouns ("Replication")
Newton Spurrell Coefficients

23.50% explained

Variables	Elements	% Age
7 8 9 10 11 12	1126.6489	100
7 8 * 10 11 12	1072.9107	95.23
7 8 9 10 * 12	1052.3431	93.40
7 8 * 10 * 12	992.5770	88.10
7 * 9 10 11 12	977.2644	86.74
7 * * 10 11 12	914.93455	81.21
* 8 9 10 11 12	896.2969	79.55
7 8 9 * 11 12	890.6301	79.05
7 * 9 10 * 12	879.14818	78.03
7 8 9 10 11 *	870.5733	77.26
7 8 * * 11 12	857.1176	76.08
* 8 * 10 11 12	844.12117	74.92
7 8 9 * 11 12	827.75677	73.47
7 8 * 10 11 *	818.38225	72.64
* 8 9 10 * 12	809.42876	71.84
7 * * 10 * 12	808.50681	71.76
7 8 * * * 12	789.35096	70.06
7 8 9 10 * *	782.90072	69.49
7 * 9 * 11 12	757.56885	67.24

Totals
16 14 11 14 11 16

6 Popularity 7, 7 Affiliation 8, 8 Class 9, 9 Popularity/Affiliation 10, 10 Popularity/Class 11, 11 Affiliation/Class

Table 3.12(a)

"You" and "They" as a percentage of total personal pronouns: Means and Standard Deviations ("Replication")

Popular Conversation

	Working Class		Middle Class	
	Hi Affil.	Lo Affil.	Hi Affil.	Lo Affil.
x	36.49	30.93	29.41	55.70
S.D.	5.98	13.51	9.25	17.38
	(N=4)	(N=4)	(N=4)	(N=5)

Unpopular Conversation

x	41.07	22.50	37.03	37.11
S.D.	6.38	7.40	10.24	18.28
	(N=4)	(N=5)	(N=5)	(N=5)

Table 3.12(b)

"You" and "They" as a Proportion of total personal pronouns ("Replication")
Newton Spurrell Coefficients

38.02% explained

Variables	Elements	% Age
7 8 9 10 11 12	2644.8441	100
7 * 9 10 11 12	2641.7889	99.88
7 8 9 10 * 12	2617.7987	98.98
7 * 9 10 * 12	2617.2885	98.77
* 8 9 10 11 12	2513.4931	95.03
* * 9 10 11 12	2511.9858	94.98
* 8 9 10 * 12	2480.6840	93.79
* * 9 10 * 12	2480.2751	93.78
7 8 * 10 11 12	2222.5738	84.03
7 * * 10 11 12	2215.3609	83.76
7 8 * 10 * 12	2204.3414	83.34
7 * * 10 * 12	2199.2487	83.15
* 8 * 10 11 12	2087.8576	78.94
* * * 10 11 12	2083.1791	78.76
* 8 * 10 * 12	2064.8197	78.07
* * * 10 * 12	2062.0453	77.96
7 8 9 * 11 12	1769.4258	66.90
7 * 9 * 11 12	1769.2641	66.89

Totals
10 9 10 16 10 18

7 Popularity, 8 Affiliation, 9 Class, 10 Popularity/Affiliation, 11 Popularity/Class, 12 Affiliation/Class

"We" as a proportion of personal pronouns

The analysis of second recorded conversations found the pattern of usage illustrated in the table of means and standard deviations (Table 3.13(a)). As with the first analysis of the occurrence of the pronoun "we", the single greatest influence is seen to be popularity of topic. The regression analysis (Table 3.13(b)) confirms the importance of variable 7 (Pop). This variable on its own is responsible for 85.03% of the variance explained by the independent variables (36.49% overall). Variable 11 (P-C) is seen to make the next most consistent contribution followed by variable 10 (P-A), though both these contributions are insignificant compared with that of variable 7 (Pop).

A comparison of the results of the two analyses of the usage of the pronoun "we" shows that in both cases, variable 7 (Pop.) is the single most influential variable.

Proportion of Egocentric Sequences

Table 3.14 indicates that, like the results of the first analysis, popularity of topic seems to have the greatest influences on the use of egocentric sequences in conversations. A slight interaction between Popularity and Affiliation is also hinted at. However, the regression analysis indicates that only 8.81% of variance is explained by the independent variables so no further analysis was carried out.

TABLE 3.13(a) - "We" as a percentage of total personal pronouns
Means and Standard Deviations ("Replication")

Popular Conversation

	Working Class		Middle Class	
	Hi Affil.	Lo Affil.	Hi Affil.	Lo Affil.
x	6.37	10.39	3.93	6.5
S.D.	5.38	3.53	4.03	7.91
	(N=4)	(N=4)	(N=4)	(N=5)

Unpopular Conversation

x	14.55	15.57	19.14	15.50
S.D.	9.62	3.48	8.80	10.97
	(N=4)	(N=5)	(N=5)	(N=5)

Table 3.13(b)

"We" as a Proportion of total personal pronouns ("Replication")
Newton Spurrell Coefficients

36.49% explained

Variables	Elements	% Age	
7 8 9 10 11 12	932.69829	100	
7 8 * 10 11 12	930.59700	99.77	
7 * 9 10 11 12	923.90494	99.06	
7 * * 10 11 12	922.17203	98.87	
7 8 9 10 11 *	911.08674	97.68	
7 8 * 10 11 *	909.07977	97.47	
7 * 9 10 11 *	903.48740	96.87	
7 * * 10 11 *	901.81371	96.69	
7 8 9 * 11 12	884.55418	94.84	
7 8 * * 11 12	879.81189	94.33	
7 * 9 * 11 12	877.51898	94.08	
7 * * * 11 12	873.33062	93.63	
7 8 9 10 * 12	867.57271	93.02	
7 8 * 10 * 12	866.39898	92.89	
7 8 9 * 11 *	863.39623	92.57	
7 8 * * 11 12	858.74826	92.07	
7 * 9 * 11 *	857.40906	91.93	
7 * * * 11 *	853.32248	91.49	
7 * 9 10 * 12	853.13310	91.47	
7 * * 10 * 12	852.33477	91.38	
7 8 9 10 * *	849.20230	91.05	
7 8 * 10 * *	848.12289	90.93	
7 * 9 10 * *	836.32521	89.67	7 Popularity
7 * * 10 * *	835.54501	89.58	8 Affiliation
7 8 9 * * 12	824.29975	88.38	9 Class
7 8 * * * 12	821.10368	88.04	10 Popularity/
7 * 9 * * 12	812.23955	87.08	Affiliatio
7 * * * * 12	809.69321	86.81	11 Popularity/
7 8 9 * * *	806.38294	86.46	Class
7 8 * * * *	803.09939	86.10	12 Affiliation/
7 * 9 * * *	795.56191	85.30	Class
7 * * * * *	793.05720	85.03	

Totals
32 16 16 16 16 16

Table 3.14

"Egocentric sequences" as a percentage of total words used: Means and Standard Deviations ("Replication")

Popular Conversations

	Working Class		Middle Class	
	Hi affiliation	Lo affiliation	Hi affiliation	Lo affiliation
x	0.41	0.35	0.52	0.84
S.D.	0.46	0.21	0.71	0.65
	(N = 4)	(N = 4)	(N = 4)	(N = 5)

Unpopular Conversations

	Working Class		Middle Class	
	Hi affiliation	Lo affiliation	Hi affiliation	Lo affiliation
x	0.83	0.7	1.17	0.624
S.D.	0.75	0.62	1.44	0.85
	(N = 4)	(N = 5)	(N = 5)	(N = 5)

Proportion of sociocentric sequences

As with the analysis of first conversations, the table of means and standard deviations of the percentage usage of sociocentric sequences (Table 3.15) gives no unequivocal indication of the relative importance of variables, but, again as with the first analysis, it appears that socioeconomic class differences are not the direction predicted by Bernstein.

The percentage of variance explained failed to reach a significant level, and the Newton-Spurrell (N.S.) analysis was not pursued.

Table 3.15

"Sociocentric sequences" as a percentage of total words used: Means and Standard Deviations ("Replication")

Popular Conversations

	Working Class		Middle Class	
	Hi affiliation	Lo affiliation	Hi affiliation	Lo affiliation
x	0.10	0.14	0.20	0.2
S.D.	0.11	0.13	0.16	0.21
	(N = 4)	(N = 4)	(N = 4)	(N = 5)

Unpopular Conversations

	Working Class		Middle Class	
	Hi affiliation	Lo affiliation	Hi affiliation	Lo affiliation
x	0.04	0.18	0.11	0.26
S.D.	0.10	0.36	0.13	0.20
	(N = 4)	(N = 5)	(N = 5)	(N = 5)

3.5.2 Summary

A comparison of the analysis of first and second conversations is shown in Table 3.16.

3.5.3 Conclusion

The analysis of data from the present experimental study of pronoun usage provides evidence that effects attributed by Bernstein to sociological factors may be more appropriately seen as being the result of psychological factors such as affiliation patterns within conversation or discussion groups and the topic of conversation and interactions between these

factors. Two competing views as to the function of pronouns within utterances are discussed; the more traditional "deficit" view of pronouns as unspecific and imprecise equivalents of nouns being the first, and the view that pronominalization is a useful tool in the transmission of "Given" information being the second. The present study provided no evidence in support of the "deficit" interpretation, particularly in its association with working class language.

Table 3.16

Comparison of Analyses of 1st and 2nd Recorded Conversations

	Most important variable in original	Variables of secondary importance	Most important variables in "replication"	Variables of secondary importance in "replication"
Total personal pronouns	Affil. & Class	P - A	x	x
I	Pop & Class	-	Pop & A - C	P - A &/ or Affil.
You & They	P - A	A - C & Pop	A - C	P - A
We	Pop	-	Pop	-
Ego. Seqs.	Pop	P - A, P - C A - C	x	x
Socio. Seqs.	P - A	Affil. & Class	x	x

X = No further analysis carried out as the percentage of variance attributable to the independent variables was not significantly large.

CONVERSATION STRUCTURE

4.1 Introduction and Hypotheses

> "The basic idea of pragmatics is that when we are speaking in certain contexts we also accomplish certain social acts. Our intentions for such actions, as well as the interpretations of intentions of actions of other speech participants, are based however on sets of KNOWLEDGE & BELIEF. Characteristics of communicative contexts is that these sets are different for speaker and hearer, although largely overlapping, and that the knowledge set of the hearer changes during the communication, ideally according to the purposes of the speaker".
>
> (Van Dijk, 1977)

In the previous chapter it was found that differences in individual pronoun usage could be attributed in large part to the degree of popularity of the topic of conversation, and that, overall, the total number of pronouns used was a function of the affiliation of group members and of their socioeconomic class. In this chapter each conversation will be looked at more closely, sectioned into quarters and the pronoun usage of each quarter inspected. Particular attention will be paid to any difference in the "profile" of pronoun usage over the conversation for the high and low affiliation groups. The overlap of Van Dijk's "knowledge sets" is likely to be greater initially in the high affiliation groups than in the low ones, thus there is likely to be much information common to all three members, in the form of shared interests, experiences and knowledge of things and persons. It is possible that this "Given" information will be signalled by pronominalization, therefore we might

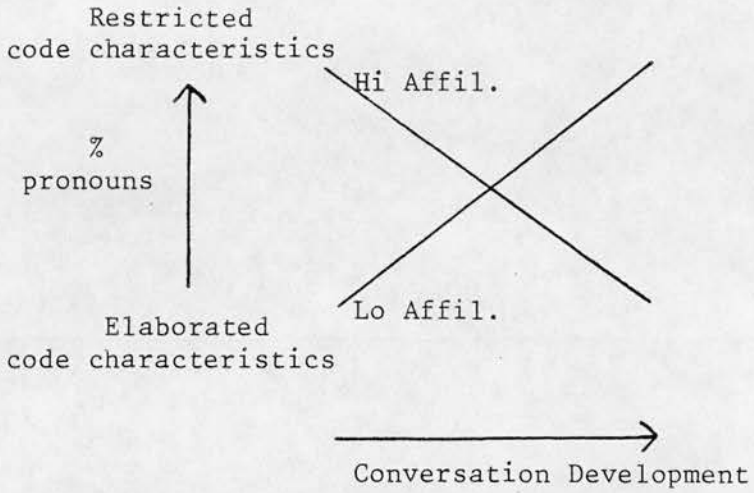
expect conversations of high affiliation groups to be characterised by an initial high pronoun usage. As the conversation develops, this fund of common experience is likely to become depleted, and in order for the interaction to continue new avenues must be explored. Thus the language of the interaction should become more explicit, and we might expect fewer pronouns to be used. Initially the rate of change of the hearer's knowledge sets will be slow, but as new ground is broken, this rate will increase. It can be argued that such a change in the proportions of grammatical elements would correspond to a primitive form of code switching.

Bernstein's restricted code, characterised by relatively high pronominalization has been associated with (mainly) working class groups where "we-ness" is considered to be high, with much shared experience and knowledge. His elaborated code on the other hand, is largely associated with middle class language which he claims is more explicit, less context-bound and thus contains a relatively small amount of pronominalization. It is predicted that the openings of high affiliation conversation, therefore, will have more characteristics of the restricted variant of language, but that over time, as the conversation develops, the language will come more to resemble an elaborated variant.

Conversely, low affiliation group conversational openings are likely to be relatively explicit, there being less overlap of knowledge and belief sets than in high affiliation groups. Members of low affiliation groups need to gather information at the beginning of the conversation, and it is possible that, as group members gain more knowledge of each other, their language will start to take on more characteristics of the restricted code, and there may be an increase in the proportion of pronouns used.

Figure 4.1

Predicted patterns of pronoun usage for high and low affiliation groups



Such an example of code switching would indicate a degree of social sensitivity on the part of group members, sensitivity indexed by the form of language used.

Since Labov (1969) has illustrated that teenage black Americans can switch from one code to another if they so wish, and more recently and nearer home, Rushton & Young (1975) found "a measure of responsiveness to context in working class language", there is no reason to suppose that working class groups will perform any less "well" than their middle class counterparts.

Hypotheses

Thus the H_Es are :

1. The percentage of personal pronoun usage of Lo affiliation groups will increase significantly throughout the conversation.
2. The percentage of pronoun usage of Hi affiliation groups will decrease significantly throughout the conversation.
3. There will be no socioeconomic class differences.

4.2 Results

Treatment of results and statistical analysis

Mean percentages of personal pronouns were calculated for each quarter of the first conversations for the eight groups. These are displayed in Table 4.1.

Table 4.1

Conversation structure: Mean percentages and standard deviations of personal pronouns in each quarter of first conversations

Popular

	1st	2nd	3rd	4th	1st	2nd	3rd	4th
		WCH (N=5)				MCH (N=5)		
x	9.64	9.65	12.48	9.26	9.82	11.98	9.39	7.93
S.D.	5.07	2.97	2.92	1.20	2.87	3.96	4.13	1.82
		WCL (N=4)				MCL (N=4)		
x	10.63	10.83	11.13	11.61	6.36	9.51	7.73	10.85
S.D.	2.76	3.18	3.61	3.29	1.44	0.98	1.65	2.92

Unpopular

	1st	2nd	3rd	4th	1st	2nd	3rd	4th
		WCH (N=4)				MCH (N=5)		
x	9.67	9.0	13.67	11.0	10.87	11.01	10.19	8.56
S.D.	2.52	1.0	3.21	1.73	2.96	2.96	3.47	2.61
		WCL (N=4)				MCL (N=4)		
x	9.80	7.96	5.18	8.56	6.32	6.98	8.40	11.82
S.D.	1.78	4.52	5.27	3.11	6.33	3.44	2.07	4.21

Since, as Table 4.1 indicates, there seem not to be dramatic differences in mean percentages between popular and unpopular topics, data have been grouped in order to show any effects of the variables "Class" and "Affiliation" graphically. Figures 4.2(a) and 4.2(b) show the conversation "profiles" for the Lo affiliation and Hi affiliation groups respectively, the data for the two socioeconomic classes being plotted separately.

Figure 4.2(a) (Lo Affiliation) shows a constant rate of pronoun usage for the working class group, but an increasing rate for the middle class boys.

Figure 4.2(b) (Hi Affiliation), similarly indicates a different "profile" for the two socioeconomic class groups; the middle class group this time showing decreasing rate of pronoun usage over the conversation.

Figures 4.3(a) and 4.3(b) use the same data, but this time show the "profiles" for the two socioeconomic classes separately. Figure 4.3(a) shows the mean pronoun profile of the two differently affiliated working class groups. The profiles are very similar apart from an unexpected rise in usage in the third quarter of conversation for the Hi affiliation group. Figure 4.3(b) shows the corresponding profiles for the middle class groups, and this time more marked and consistent differences show up between the high and low affiliation groups. This graph bears a tolerable relationship to the pattern predicted above (4.1). The Lo affiliation group show an increasing rate of pronoun usage over the conversation and the Hi affiliation group show the reverse trend, namely a decreasing rate. Such profiles are consistent with the sort of code switching discussed in the introduction.

FIGURE 4.2(a)

Conversation profiles for low affiliation groups

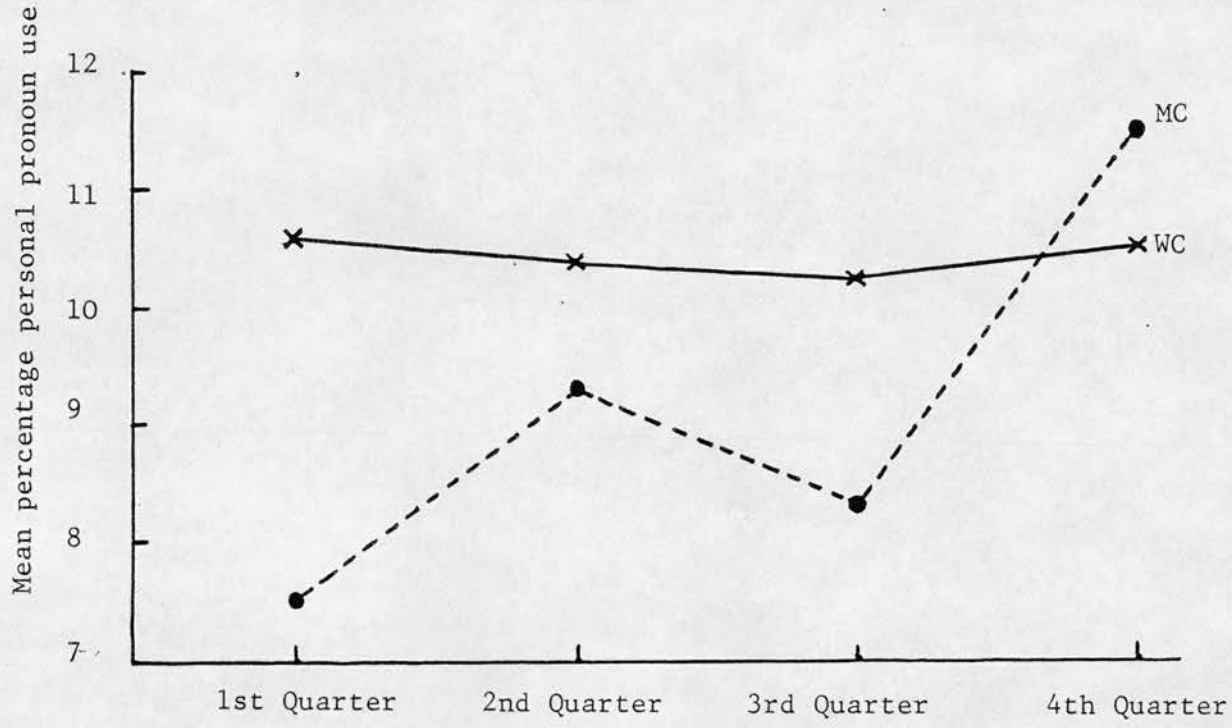
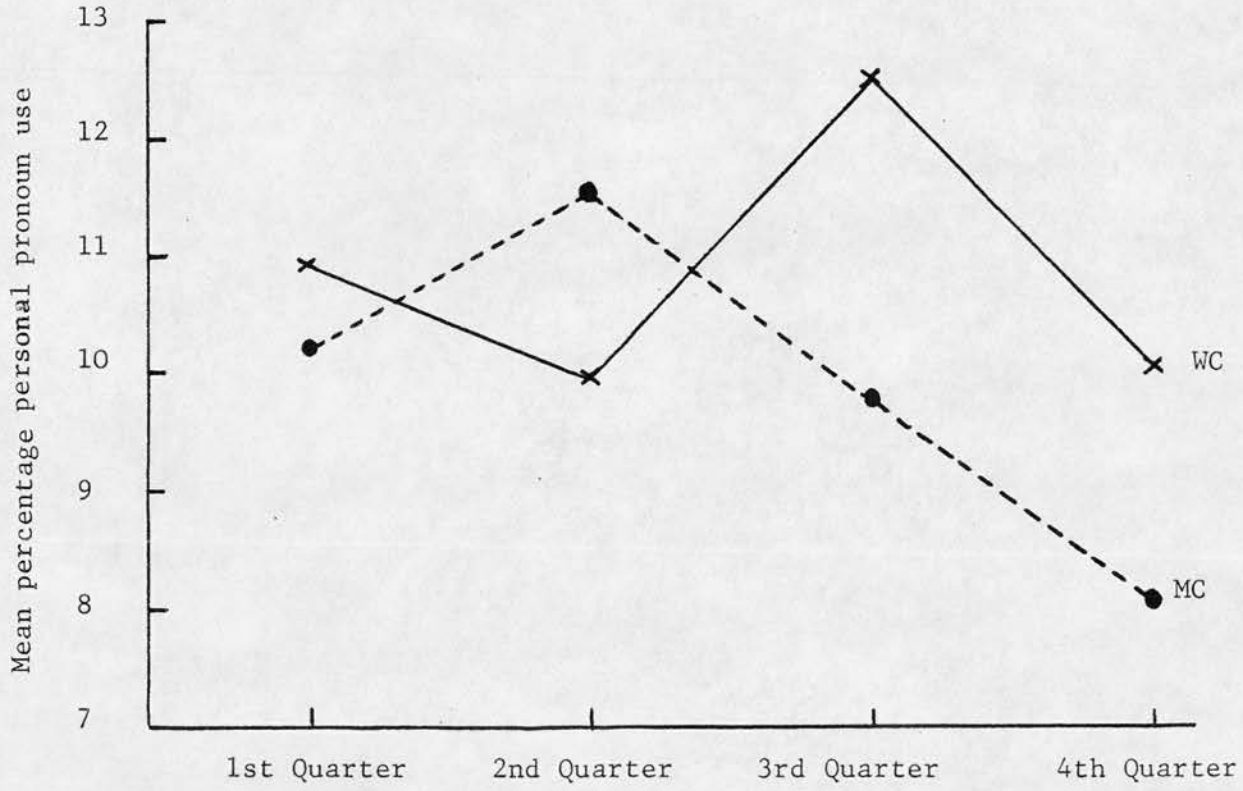


FIGURE 4.2(b)

Conversation profiles for high affiliation groups



Development of Conversation

MC WC

FIGURE 4.3(a)

Conversation profiles for WC groups

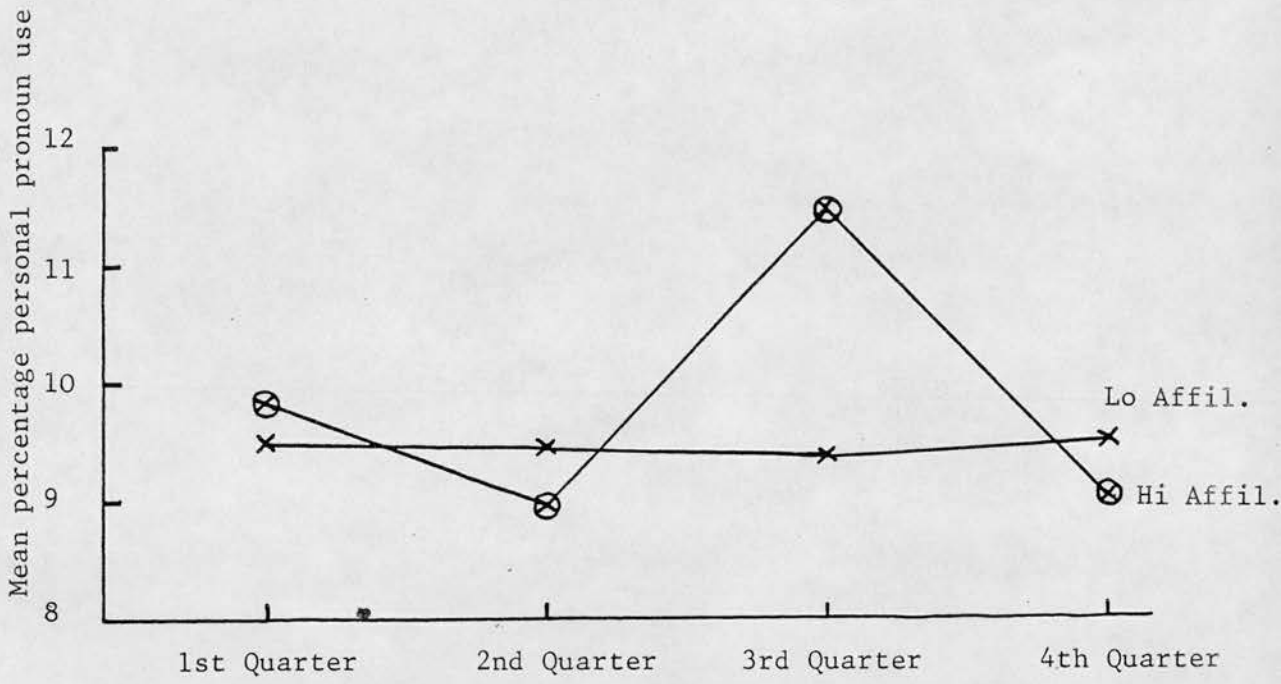
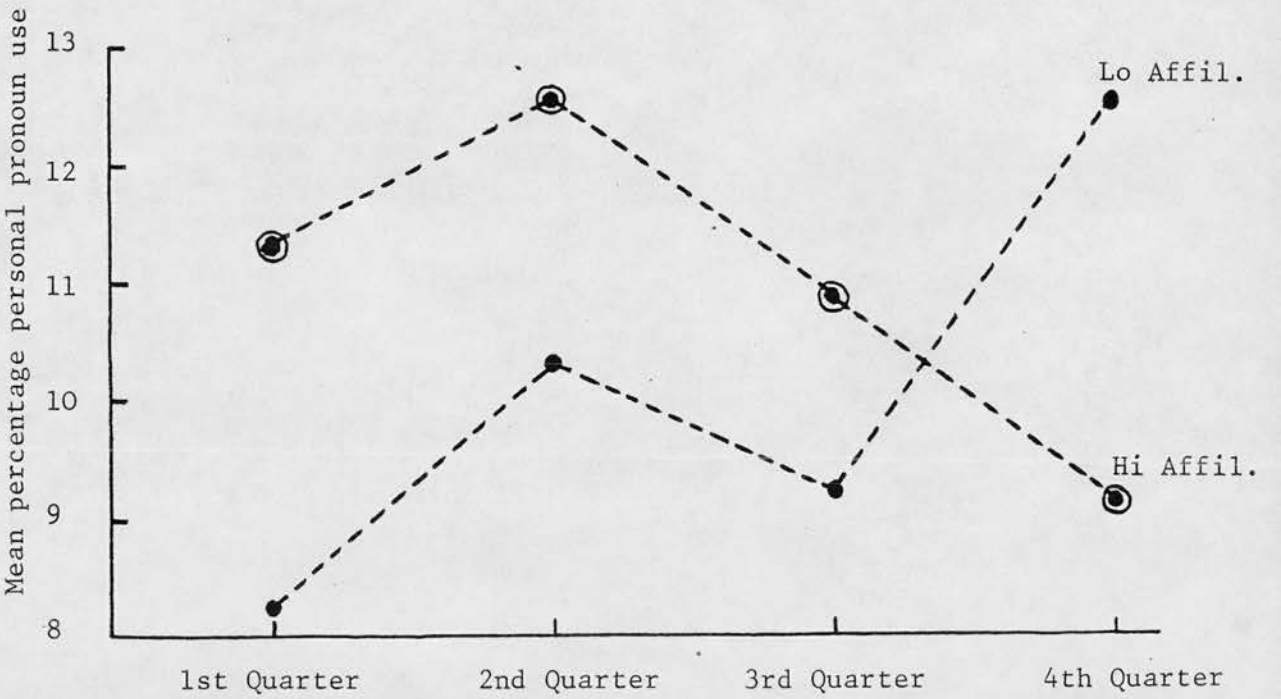


FIGURE 4.3(b)

Conversation profiles for MC groups



Having eliminated the topic variable (Popularity), it was possible to carry out a Friedman 2-way analysis of variance by ranks. The groups were matched in that I.Q. was controlled, educational experience was as similar as possible for all the boys, and all boys were taken from the same year group at school. The WCH, WCL and MCH affiliation groups were found to have non-significant differences between means of different parts of the conversation ($\chi^2_r = 4.93$, $\chi^2_r = 2.37$, $\chi^2_r = 5.65$, respectively for 3 degrees of freedom) which indicates an absence of any significant trend in pronoun usage over the conversation. The MCL affiliation group upward trend, however, was found to be significant ($\chi^2_r = 13.41$, D.F. = 2, $p < 0.00035$. c.f. Figure 4.3(b).)

Thus, we cannot accept H_Es (2) and (3), and H_E (1) is supported only for the MC group.

Further statistical comparisons between quarters have been made by taking the differences between quarters as the response variable and carrying out another regression analysis.(1) When considering the change between the first and second quarters, only 14.98% of the variance is explained by the independent variables. The Newton-Spurrell analysis was, therefore, not pursued.

Change between quarters 2 and 3 seems to be more marked, and 26.4% of the variance is explained by the independent variables. (See Table 4.2(a)). Such changes as do occur seem to be attributable largely to variable 11 (The Affiliation-Class interaction) though the absence of variable 11 can be masked by the inclusion of all other variables. This finding supports the interaction between Affiliation and Class shown in Figure 4.2(b).

(1) This procedure was adopted on the advice of Dr P Fisk, Department of Statistics, University of Edinburgh. Levels of significance derived from cR values for 29 degrees of freedom provided by the N.S. analysis are as follows:
⩾ 18.48% explained is significant at the .05 level.
⩾ 28.55% explained is significant at the .01 level.

Table 4.2(a)

Changes in use of personal pronouns over the conversation

Change 2nd to 3rd Quarter (3rd-2nd)

26.49% explained

Variables	Sum of Elements	% Age
6 7 8 9 10 11	188.441214	100
* 7 8 9 10 11	138.36055	99.69
6 7 8 9 10 11	180.76873	95.93
* 7 8 9 * 11	178.54571	94.75
6 7 8 9 10 11	173.83344	92.25
* 7 8 * 10 11	170.59366	90.53
6 * 8 9 10 11	163.33979	86.68
6 * 8 * 10 11	162.49108	86.23
* * 8 9 10 11	158.03001	83.86
* * 8 * 10 11	155.31229	82.42
6 7 8 * * 11	148.13363	78.61
6 7 * 9 10 11	147.3173	78.18
6 7 * * 10 11	146.14028	77.55
* 7 * 9 10 11	141.79881	75.25
6 * 8 9 * 11	141.57301	75.13
* * 8 9 * 11	140.56292	74.59
6 * * 9 10 11	138.56123	73.53
6 7 8 9 10 *	137.25508	72.84
* 7 * * 10 11	137.20394	72.81

Totals
11 12 14 12 14 18

6 Popularity
7 Affiliation
8 Class
9 Popularity-Affiliation
10 Popularity-Class
11 Affiliation-Class

Table 4.2(b)

Changes in use of personal pronouns over the conversation

Change 3rd to 4th Quarter (4th-3rd)

27.74% explained

Variables	Sum of Elements	% Age
6 7 8 9 10 11	221.537844	100
* 7 8 9 10 *	221.31791	99.90
6 7 8 9 * 11	221.21593	99.85
* 7 8 * 10 11	219.94016	99.28
* 7 8 * 10 *	219.87305	99.23
6 7 8 9 10 *	219.25986	98.97
6 7 8 9 * *	218.48833	98.52
* 7 8 9 * 11	217.81065	98.32
* 7 8 9 * *	217.44908	98.15
6 7 8 * 10 11	214.77554	96.95
6 7 8 * 10 *	214.21882	96.70
* 7 * * * 11	213.75719	96.49
* 7 8 * * *	213.67228	96.45
* 7 8 9 10 11	212.06308	95.72
6 7 8 * * 11	210.89753	95.20
6 7 8 * * *	210.13129	94.85
* 7 * 9 10 11	204.75944	92.43
* 7 * 9 10 *	204.75864	92.43
* 7 * * 10 11	204.75695	92.43
* 7 * * 10 *	204.75568	92.42
* 7 * * * *	197.56547	89.18
6 7 * 9 10 11	196.91303	88.88
6 7 * 9 10 *	196.75537	88.81
6 7 * * 10 11	196.71865	88.80
6 7 * * 10 *	196.62797	88.76
* 7 * 9 * 11	191.65701	86.51
* 7 * 9 * *	191.63631	86.50
* 7 * * * 11	190.91792	86.18
6 7 * 9 * 11	186.99812	84.41
6 7 * * * 11	184.67066	83.36
6 7 * 9 * *	176.69745	79.76

Totals
15 31 16 16 16 16

6 Popularity
7 Affiliation
8 Class
9 Popularity-Affiliation
10 Popularity-Class
11 Affiliation-Class

In the change from third to fourth quarter, 27.74% of the variance may be explained by the independent variables, and this time variable 7 (Affiliation) plays an important part (See Table 4.2(b)). It alone accounts for 98.18% of the attributable variance. In combination with variable 8 (Class) 96.45% is accounted for. Once again the graphical interaction (Figure 4.3(b)) is supported.

4.3 Discussion

Whilst the predicted code switching does occur to some extent in middle class conversations, the change in percentage pronoun usage is found to be significant only in the case of the middle class low affiliation group. No such trends are evident in the working class conversations. Thus, it appears that, contrary to expectation, middle class subjects are displaying more social sensitivity than their working class peers. This finding is reminiscent of the kind of observation made by Schatzman and Strauss (1955) when they speak of the middle class person's "greater sensitivity to his listener". So, this one piece of evidence seems to indicate a possible working class "deficit" due to a lesser degree of social sensitivity.

There are parallels between the results reported above and those of a study of code switching carried out by Douglas-Cowie (1978). In an investigation of linguistic code-switching in a Northern Irish village, it was observed that all informants who adjusted their speech for the interviewer tended to return to a less standard speech code in the second half of their conversations. Although unfamiliar members of ones own peer group hardly correspond to the "English outsider" of Douglas-Cowie's study, the code switching observed in the Irish study has its equivalent in the pattern of pronoun usage of the middle class low affiliation group in the present study. The linguistic code

switching associated with the topic of conversation[1] described by Douglas-Cowie does not, on the other hand, seem to have an equivalent in our study. However, code switching does not appear to a significant extent in the working class low affiliation group, and this class difference requires explanation. It is entirely possible that motivational factors are entering into the experiment. The low affiliation conversation groups, after all, had not chosen to converse as had the high affiliation groups, and as Oppenheimer (1978) claims, motivation can be assumed to be present during all activities associated with "processing of social perspectives" (seeing and taking into account the point of view of one's companions). Thus, in low affiliation groups, members can choose to interact with other people or not as they wish. Furthermore, Oppenheimer claims that the child may be able to infer the perspective of the other person, "although in fact no inference will take place as a result of the inability to see any point ('need') in making such an inference." Thus, the apparent lack of code switching in working class low affiliation groups may tell us more about the motivation of these groups than of their abilities in respect of their social sensitivity.

A further investigation into the social adjustment of the two groups is reported in Chapter 7.

4.4 Second Conversations

4.4.1 Analysis of second conversations

The analysis of first recorded conversations gives some support to the hypotheses that some groups with low affiliation structure will begin conversations rather explicitly, using relatively few pronouns, but as common

(1) Douglas-Cowie found that certain topics of conversation, in particular, education and work, or occupations, tended to cause informants to switch to more formal, standard linguistic forms.

ground is established, will begin to use more pronouns. This pattern was observed for middle class groups where a significant change in pronoun usage was registered by the middle class Lo affiliation group. (See Figure 4.3(b)).

It is to be expected that changes in affiliation which have taken place during the first conversation will give rise to rather different patterns of pronoun usage in the second recorded conversations. Information concerning other members of the group, their attitudes, likes and dislikes may have been exchanged before the second recorded conversation and thus the overall level of pronoun usage in these second conversations is likely to be higher than in first recorded conversations. Furthermore increase in pronoun use observed during the first conversation of middle class Lo affiliation groups is likely to be either reduced or absent altogether.

Thus the experimental hypothesis is :

H_E : There will be no significant increase in personal pronoun use by middle class Lo affiliation groups during second conversations.

4.4.2 Results

Table 4.3 showing mean percentages and standard deviations for total number of personal pronouns used in each quarter of conversation indicates no clear consistent trend in pronoun usage for any group. Figures 4.4(a) and 4.4(b) and Figures 4.5(a) and 4.5(b), prepared by amalgamating proportions of pronouns used from popular and unpopular topic conversations, enable comparisons to be made between conversation profiles for first and second conversations.

The significant upward trend present for the MCL group in first conversations is altogether absent in the "replication",

second conversations. Figures 4.5(a) and 4.5(b) also show the similarities between working class and middle class groups in both affiliation conditions and the absence of any patterns of change of usage over the development of the conversation. These graphs (Figures 4.5(a) and 4.5(b)) show the overall greater rate of personal pronoun use in the second conversation in Hi affiliation groups of both socioeconomic classes. (Mean percentage of 11.66% S.D. = 1.77 for Hi affiliation groups, and 10.46% S.D. = 1.09 for Lo affiliation groups).

Table 4.3

Mean percentages and standard deviations of personal pronouns in each quarter of second conversations

Popular

	1st	2nd	3rd	4th	1st	2nd	3rd	4th
		WCH (N=4)				MCH (N=4)		
x	9.50	9.85	7.92	11.06	11.36	12.98	12.65	11.79
S.D.	4.36	5.11	2.39	2.65	1.89	2.48	2.42	3.02
		WCL (N=4)				MCL (N=5)		
x	10.28	10.01	10.51	12.21	10.61	10.36	9.42	11.92
S.D.	2.65	2.21	3.04	4.40	3.65	1.91	5.82	5.93

Unpopular

	1st	2nd	3rd	4th	1st	2nd	3rd	4th
		WCH (N=4)				MCH (N=5)		
x	12.01	14.58	13.98	11.57	12.77	12.57	9.38	12.51
S.D.	2.51	10.04	3.15	4.72	5.01	4.78	2.70	3.81
		WCL (N=5)				MCL (N=5)		
x	9.14	11.43	9.45	9.07	9.94	12.42	9.41	11.20
S.D.	4.39	0.82	1.96	3.85	2.41	2.95	2.43	4.45

The Newton-Spurrell analysis[1] of changes in pronoun use over these second conversations indicates that only in the change from 3rd to 4th quarter of the conversation is there a large enough percentage of variance attributable to the independent variables to warrant further analysis. (21.24% explained).

Table 4.4 indicates that variable 10 (P-C interaction) is the most important contributor to the 21.24% variance explained.

Figure 4.6 presents a comparison of profiles of pronoun use during first and second conversations. In a majority of cases the overall level of pronoun usage is higher in second conversations than in first conversations.

(1) The levels of significance associated with percentages of variance explained, for 30 degrees of freedom, are 17.98% at the .05 level and 27.89% at the .01 level.

FIGURE 4.4(a)

Conversation profiles for WC groups

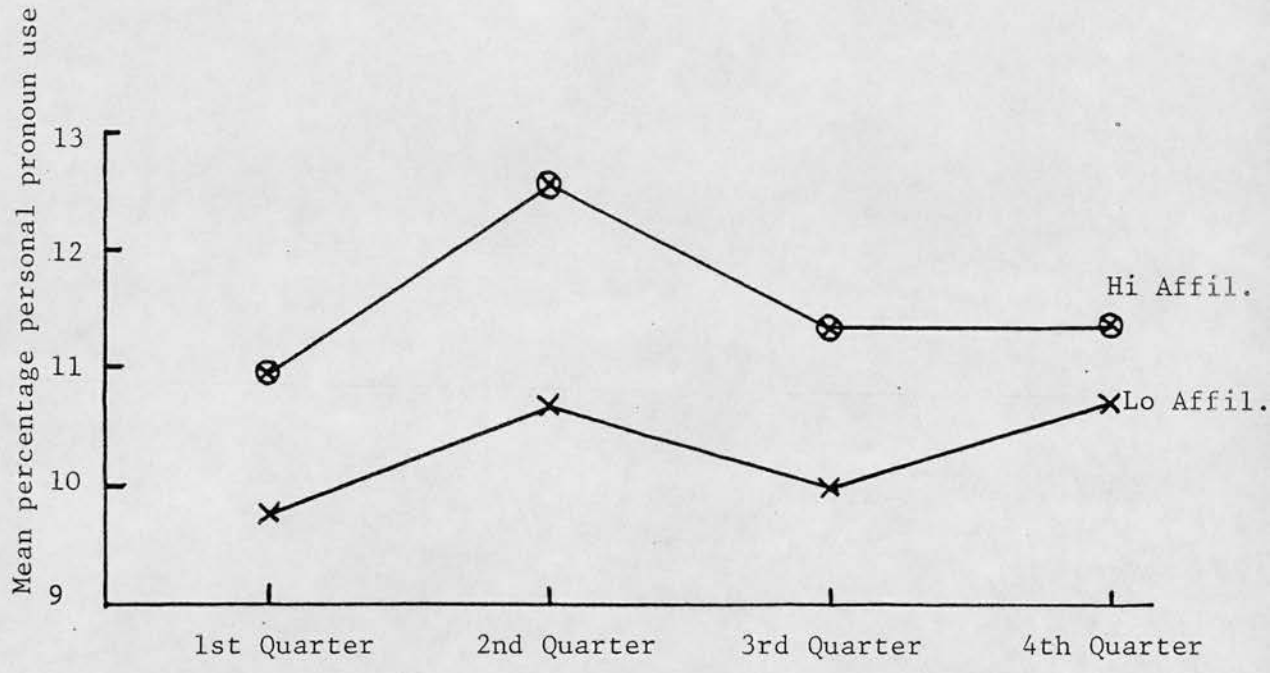


FIGURE 4.4(b)

Conversation profiles for MC groups

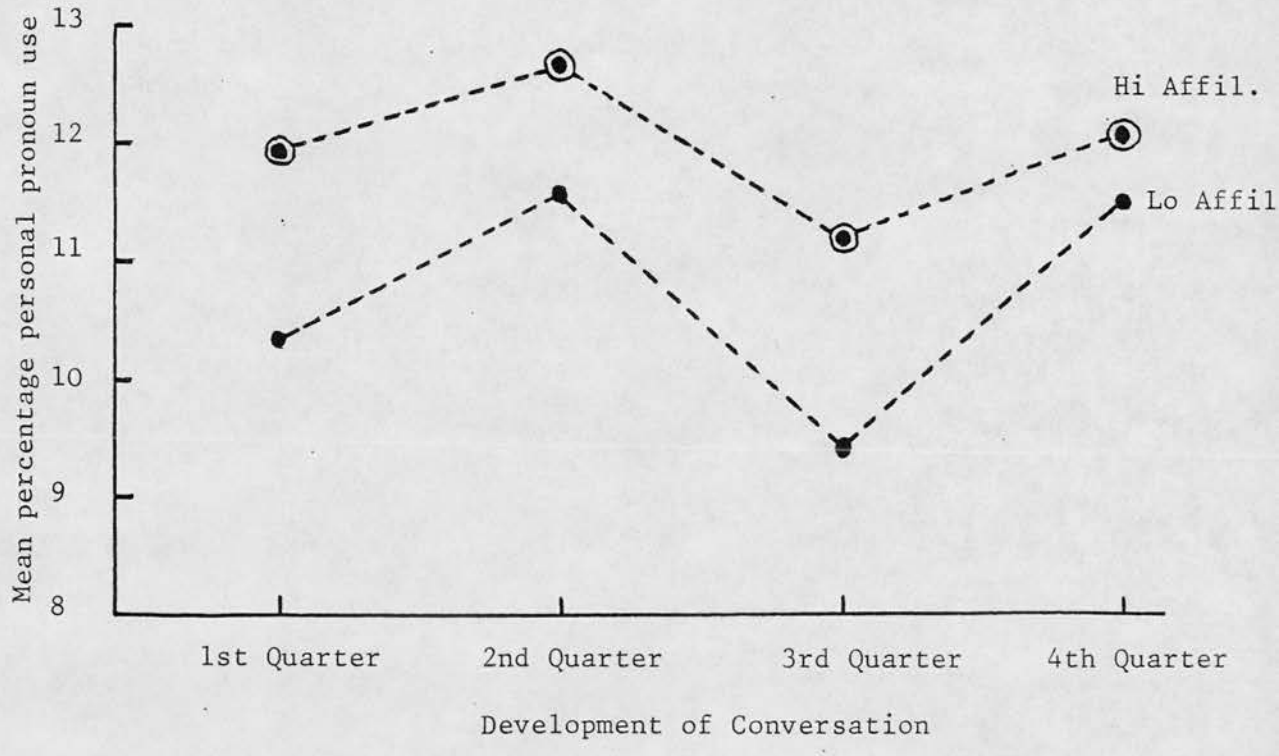


FIGURE 4.5(a)

Conversation profiles for low affiliation groups (2nd Conversation)

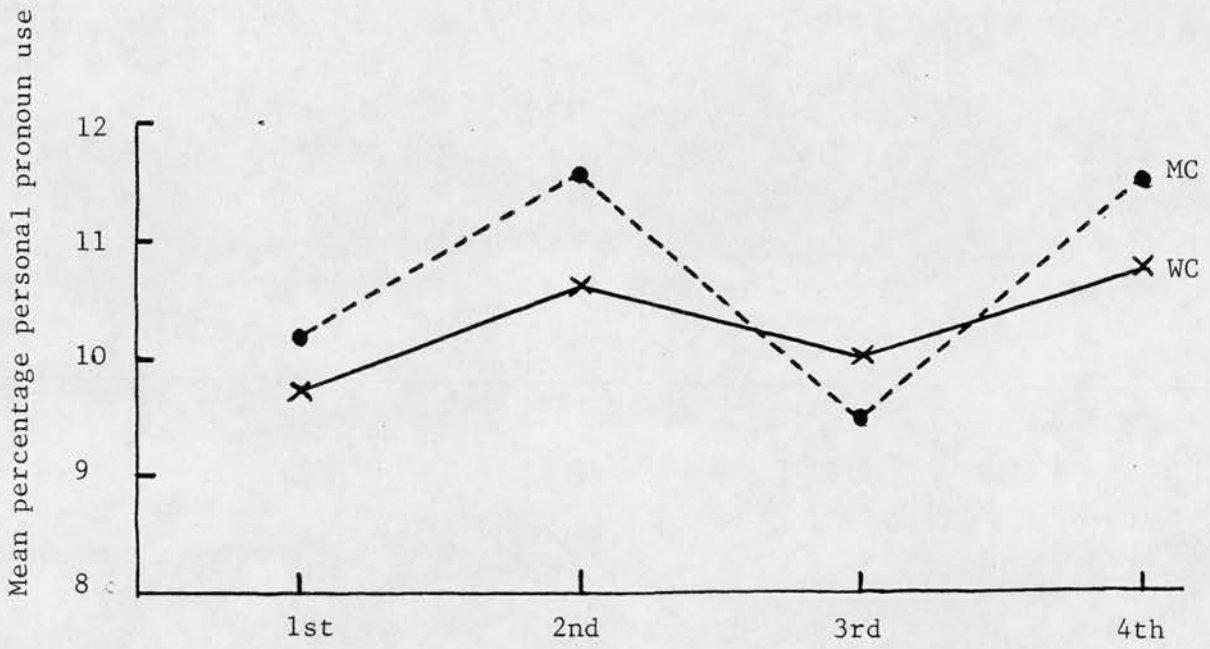


FIGURE 4.5(b)

Conversation profiles for high affiliation groups (2nd Conversation)

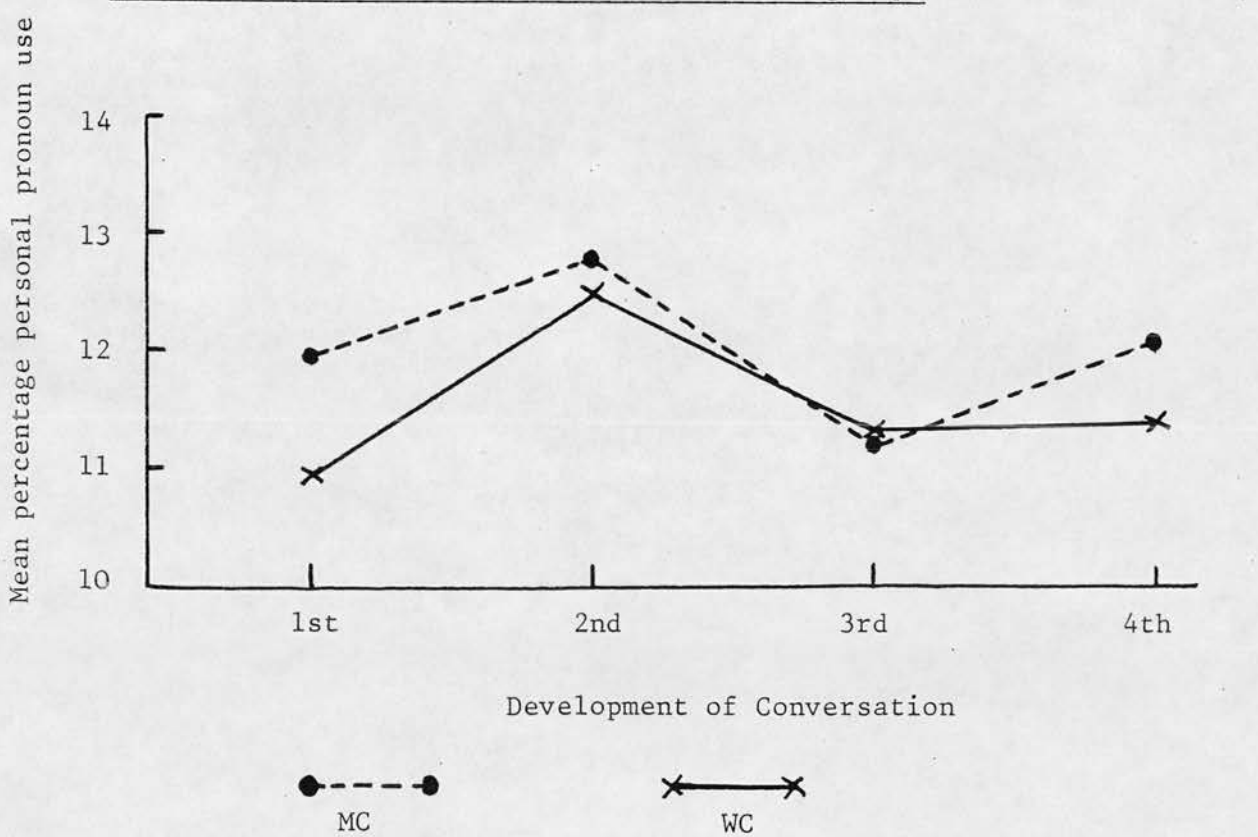


Table 4.4

Changes in use of personal pronouns over the conversation ("Replication")

Change 3rd to 4th Quarter (4th-3rd)

21.24% explained

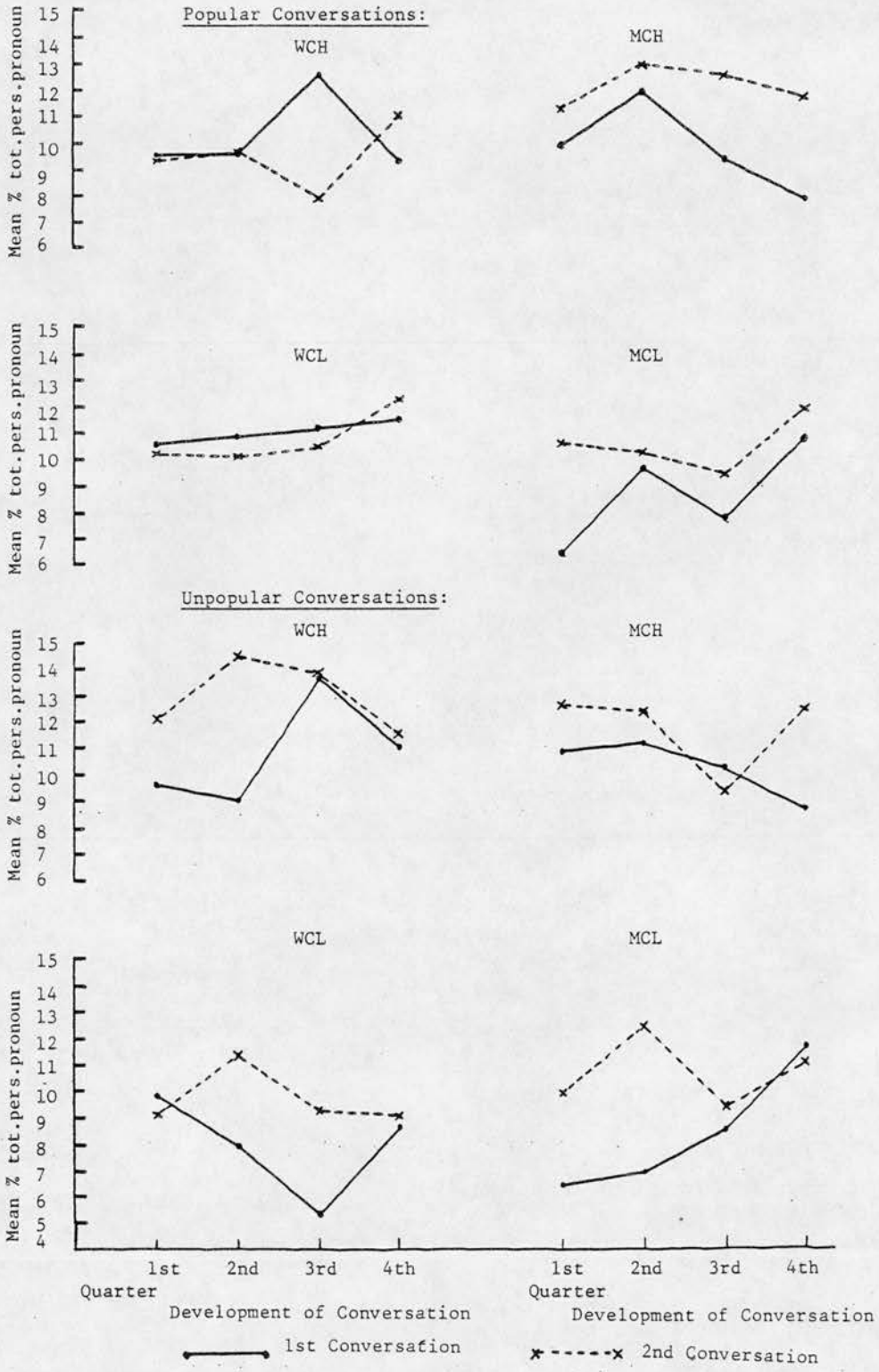
Variables	Sum of Elements	% Age
6 7 8 9 10 11	97.601134	100
6 7 8 9 10 *	96.961343	99.34
6 7 8 * 10 11	96.144451	98.51
6 7 8 * 10 *	95.539127	97.89
6 * 8 9 10 11	93.650719	95.95
6 * 8 9 10 *	92.856432	95.14
6 * 8 * 10 11	92.401571	94.67
6 * 8 * 10 *	91.597211	93.85
6 7 * 9 10 11	88.078141	90.16
6 7 * 9 10 *	87.472817	89.62
6 7 * * 10 11	87.280487	89.43
6 7 * * 10 *	86.664144	88.79
* 7 8 9 10 11	85.296121	87.39
* 7 8 9 10 *	85.102456	87.19
* 7 8 * 10 11	83.898742	85.96
* 7 8 * 10 11	83.696802	85.75
6 * * 9 10 11	83.540463	85.59
6 * * * 10 11	82.921878	84.96
6 * * 9 10 *	82.774381	84.81
6 * * * 10 *	82.148061	84.17
* * 8 9 10 11	81.947765	83.96
* * 8 9 10 *	81.663464	83.67
* * 8 * 10 11	80.736717	82.72
* * 8 * 10 *	80.471134	82.45
* 7 * 9 10 11	75.618633	77.48
* 7 * 9 10 *	75.445876	77.30
* 7 * * 10 11	74.869712	76.71
* 7 * * 10 *	74.690614	76.53
* * * 9 10 11	71.727633	73.49
* * * 9 10 11	71.462050	73.22
* * * * 10 11	71.138864	72.89
* * * * 10 *	70.870387	72.61

Totals
16 16 16 16 32 16

6 Popularity
7 Affiliation
8 Class
9 Popularity-Affiliation
10 Popularity-Class
11 Affiliation-Class

FIGURE 4.6

A comparison of profiles of pronoun use during first and second conversations



4.4.3 Discussion

The overall usage of pronouns in second conversations exceeds that of first recorded conversations as predicted, except in the case of working class popular conversations where no difference is discernable.

Figures 4.4(a), 4.4(b), 4.5(a), 4.5(b) illustrate the absence of change in pronoun use over second conversations for all groups. These results, together with the suggested influence of the P-C interaction (over the 3rd to 4th quarter) support the predicted absence of increase in pronoun use and reduction of influence of the affiliation variable. Thus, this analysis of second conversations supports the experimental hypothesis in that there is no significant increase in personal pronoun use by middle class Lo affiliation groups during second conversations. Furthermore, only in working class popular conversations is there no differentiation between first and second conversations in terms of overall level of pronoun use. Thus the P-C interaction is again evident.

4.4.4 Conclusion and Summary

A study of conversation structure was carried out, involving two sets of conversations, which predicted that, in the first conversations, low affiliation groups would significantly increase the proportion of personal pronouns used throughout the conversation, that high affiliation groups would show the reverse trend, and lastly that no differences due to socioeconomic class would be apparent. Only in the case of middle class low affiliation groups was the H_E supported. A difference between the results of the analysis of the second recorded conversation and that of the first was predicted. Previously low affiliated groups would no longer be unfamiliar to one another, thus a decrease in the importance of the variable affiliation as a predictor of change was hypothesised and this prediction was consistent with the results of the Newton-Spurrell analysis.

REFERENCE IN CONVERSATION

5.1 Reference social class and communicative competence

5.1.1 Introduction

> "We must ... assume that in order to interpret the messages he receives, the addressee must elaborate representations in connection with those messages. If the addressee is not able to build up such representations, the message is meaningless for him."
>
> Henry (1971).

In normal conversation, as in many other forms of communication, the process of building up representations in memory must of necessity involve the assigning of pronouns and other functionally equivalent grammatical categories to appropriate referents. The factors influencing such assignments have been seen to be a problem for any model of language comprehension (e.g. Grober et al., 1978). At the same time, the importance of pronominalization has been emphasised by Lesgold who describes it as "a device for unifying sentences in memory", (Lesgold, 1972). Early experiments by Lesgold suggested that sentences with propositions related by pronouns were completely integrated in memory representations, whilst those with a repetition of a noun or substitution of another lead to incomplete integration. Such examples of successful integration of propositions in memory associated with pronouns suggests that comphrehension of pronominal reference, whilst being a problem for the theorist, does not, in some cases at least, pose a problem for normal adult listeners.

Much recent and current research into the mechanisms of processing of utterances in context, using adult subjects, has studied processes which enable the accessing of knowledge in

memory, and more specifically the identification of the referents of pronouns. Whilst the question as to how pronouns are appropriately assigned to referents is too lengthy a topic for discussion here, the process would seem to include clues such as stress (Maratsos, 1973), article modification and verb type (Yekovich and Walker, 1978) "verb-derived constraints" (Springston, 1976 cited in Hirst & Brill, 1980) such as implicit causality relations or "verb semantics" whereby direction of causality is assigned to verb roots (Garvey et al., 1974-75, Caramazza et al., 1977, Grober et al., 1978), feature marking, with gender as a critical feature (Grober et al., 1978), and the "parallel function strategy" whereby a pronoun in the second conjunct of a complex sentence is interpreted as being coreferential with the noun phrase that has the parallel grammatical function in the first conjunct (Grober et al., 1978). It is reasonable to suppose that semantic, pragmatic and syntactic features interact to bring about successful comprehension. For a discussion of when such interaction and integration occurs, see Hirst and Brill (1980).

In Chapter 3, links between pronoun usage and factors such as social class, affiliation of group members and topic of conversation were explored, and results suggested that familiarity with either people or topic has a considerable influence on frequency of pronoun use. Social class was suggested as an important co-variable (together with popularity and the popularity-affiliation interaction) only in the case of the total number of personal pronouns used and that of the first person singular "I". It was also found that middle class groups tended to use the first personal singular "I" with greater frequency than their working class peers. We shall further explore the differences in overall pronoun usage.

Another objective of the earlier analysis was to compare the traditional "deficit" view of pronoun usage (pronouns are

unspecific and imprecise equivalents of nouns) with the view that pronominalization is a useful tool in the transmission of "given" information. The arguments comprising this debate are also pertinent to the present analysis. It may be remembered that pronoun use has been associated with "lack of specification" in communication (Bernstein 1962b). This may indeed be the case, or, as Higgins (1976) suggests, greater use of pronouns may also result in "concise economical messages". What seems crucial to this whole debate is the appropriacy of use of any such pronouns. A pronoun inappropriately used may well result in ambiguity and confusion on the part of the listener, whilst an appropriately used pronoun is, at worst, "a form of variation designed to avoid ungainly repetition", (Fowler & Fowler, 1930), and at best a means of labelling "given" information. If the language of working class restricted code users does contain pronouns with ambiguous or unclear referents, then it may be possible to describe such language as deficient in some way. One method of analysing the appropriacy of pronoun usage is by means of a classification of personal pronouns into anaphoric, cataphoric or exophoric groups.

5.1.2 Anaphoric, cataphoric and exophoric reference

Hasan (1968) claims that narrative cohesion may be achieved by the use of anaphoric grammatical items where anaphoric reference is reference backwards to something already mentioned. Cataphoric reference is forwards to something about to be mentioned.

Examples from Hasan (1968)

Anaphoric reference:

The cat only grinned when it saw Alice. (Lewis Carroll)
(where "it" refers backwards to "the cat").

Cataphoric reference:

If he's not careful John will be out of a job
(where "he" refers forward to "John").

In both the above examples the conversation has both coherence and cohesion, and in neither case can the pronoun usage be said to lead to any ambiguity or uncertainty as to what is being communicated. Anaphoric and cataphoric reference may apply to a variety of grammatical categories, but they apply principally to pronouns. A third type of reference Hasan describes as being 'outwards', where the grammatical item (again most usually a pronoun) refers to something in the environment of the speaker.(1) This type of reference she terms "exophoric".

Example

Exophoric reference

He's here.
(Where "he" has no direct referent in previous text).

It is possible that the listeners to the above speaker may share his environment, in which case the referent of "he" is clear to all participants in the conversation. Conversely, the listeners (and any reader of the transcripts) may not share the speaker's environment, and in this case the exophoric reference will lead to ambiguity and unclarity of communication.

(1) In all cases of classification of grammatical elements only textual clues are utilized. Thus, in the case of "outwards" reference, situational cues (information shared by speakers, but not made verbally explicit) are not taken into account. Hasan (1968) states that a verbal referent is normally required if the text is to be complete.

As Hasan (1968) reasons -

> "... the native speaker, when he faces the problem, consciously or unconsciously, of determining the status of a specimen of his language, invokes two kinds of evidence: the linguistic and the situational. Linguistically he recognizes the specific features which bind the passage together, a wide variety of patterns of connection between and among sentences. Situationally, he takes into account all that he knows of the context of the situation ... In other words, he uses both internal and external criteria."

In order to comprehend and correctly process an occurrence of an exophoric reference in any text, the listener calls upon external, situational evidence, there being insufficient internal, linguistic clues to enable a confident judgement to be made. If such external evidence is absent, then, and only then, may a statement be judged to be ambiguous and confusing.

5.1.3 Empirical Studies

Hawkins (1969) argues that preference for either anaphoric/ exophoric pronouns suggests different purposes and kinds of usage of language. Initial findings of the Hawkins (1969) study, it may be remembered, indicated a "broad tendency" for a middle class preference for the noun and its associated forms and a working class preference for the pronoun in both narrative and descriptive speech. However, greater or lesser preferences for the use of pronouns over nouns is in itself not particularly illuminating, especially when looked at in the light of appropriacy of such use. Thus, Hawkins, by means of a detailed grammatical study of the nominal group (for details of this see Hawkins, 1969) found that significantly more 5 year old working class children used items of exophoric reference than did their middle class counterparts, whilst again, significantly more middle class children used parts of speech associated with the noun: This finding was interpreted as being supportive of Bernstein's theory of restricted and elaborated codes.

Turner (1973), also working within Bernstein's framework, in a comprehensive study of children's language of control, hypothesised that, in role playing speech, his working class subjects would tend to be less explicit than middle class peers in their reference (2 main groups were used aged 5 and 7 years respectively). Because of what Turner termed "interpretative difficulties" (namely the problem of an initial reference either explicit or inexplicit, followed by subsequent references all being classed as "inexplicit" according to the definitions used) degrees of inexplicitness were not simply measured in terms of the anaphoric/exophoric distinction. Instead "inexplicit reference associated with anaphoric reference to preceding role-play speech" was differentiated from "any other inexplicit pronominal reference." Both forms of reference was classed as "inexplicit". In terms of the second category of inexplicit reference, at age 5, only 20 middle class children and 19 working class children (from a sample of 439 children) were found to employ such references, whilst at age 7 years, 13 middle class and 26 working class children (from a sample of 298) were found to refer in this way. Turner claims that, at 7 years of age, this difference is significant at $p < 0.05$. Furthermore, the children appeared to be using different linguistic contexts to some extent (commands, threats, questions and so on), but controlling for this, Turner argues that his data support his hypothesis and that "the indications are that the middle class and working class children tended to make different types of reference, with the working class children using the inexplicit type". (pp.183-4).

In a story reproduction task involving childen between the ages of 5.9 and 7.3 years, Francis (1974) found no significant class differences in the use of nominal group items nor in exophoric reference, although exophoric pronoun usage was relatively high (33.3%) for both working class and middle

class groups at age 7. Jenkinson & Weymouth (1976), in a study of pronoun usage, cohesion and explicitness in the speech of 16 and 17 year old working class youths, found that in a descriptive, narrative oral task, the level of exophoric pronoun usage was 'minimal' and not sufficient to detract from the overall cohesion and explicitness of the texts.

Thus in terms of grammatical elements and their classification, there is some slight indication that some working class subjects in some situations use more inexplicit reference than their middle class peers. However, it can be argued that, in the Hawkins study, the pictures being described were equally available to both speaker and listener. Thus, what, in transcript, appears as inexplicit, exophoric usage cannot be classified as being deficient communication. The Turner study, similarly, does not provide overwhelming support for Bernstein's hypothesis concerning lack of specification in working class speech, as much "reference associated with anaphoric reference to preceding role-play speech" had been disregarded.

5.1.4 Communicative competence

Looking more specifically at communicative competence, Higgins (1976) claims that, in spite of a number of studies which have claimed to support the working class "deficit" view with regard to communicative accuracy, there is little support for hypothesised social class differences in verbal communicative style. He argues, moreover, that the likelihood of finding social class differences in communicative accuracy may be varied according to the particular experimental task and the procedures for sampling of social class. An example of an experiment which results in the recording of a poor communication performance by lower class subjects was conducted by Alvy (1973). This study involved subjects in the task of 'tailoring' their communications to the supposed

emotional and/or cognitive characteristics of the "listener" (a black and white drawing). Lower class children were found to adapt their communication less often than their middle and upper class peers. Alvy takes this as evidence in support of Bernstein's claims of working class non-orientation towards the "use of the verbal channel of communication as a means for conveying their assumptions about people." (p.97)

5.2 The present study

5.2.1 Introduction

The present study is concerned to apply analytical techniques previously applied to more artificial situations to the relatively informal conversations recorded and analysed in previous chapters. Again, by looking at the effects on pronoun usage of the independent variables of social class, affiliation and topic of conversation and any primary interaction between these, a little light may be shed on the murky waters of the deficit hypothesis as it applied to both "lack of specification" in communication (Bernstein, 1962b) and any associated lack of communicative competence. Furthermore, it is felt that much can be learned by observing which statements participants themselves find unclear or ambiguous, and so a study of reactions to ambiguity in the form of WH-questions is included.

5.2.2 Predictions and Hypotheses

Hypothesised effects of variables in the study

1. Topic

While the more popular topic was not found to increase the overall pronoun usage (See Chapter 3), it is none the less possible to predict that, due to the greater shared

information between participants when conversing about a popular topic there may be a greater use of exophoric reference (a higher proportion of exophoric pronouns and other reference items) than in the corresponding unpopular topic of conversation.

2. Affiliation

Similarly, a high degree of affiliation is likely to increase exophoric reference (due, once again to the "tacit contract between participants by virtue of convergence of assumptions" (Rommetveit, 1971, p.24)). It can also be hypothesised that, as affiliation is not a static state, and that, particularly in the case of low affiliation groups, initial affiliation patterns are likely to change during the first conversational interaction, it can further be predicted that second conversations will be characterised by greater exophoric reference than the first.

3. Class

Effects previously attributed to social class differences may be accounted for by variables (1) and (2), thus we might expect there to be no significant class differences in exophoric reference.

Bernstein et al., would predict greater exophoric usage in working class groups.

Prediction concerning ambiguity

High exophoric usage need not necessarily be synonymous with lack of specification and ambiguity. Uhlenbeck (1963, quoted in Carswell and Rommetveit, 1971) notes that language "functions in its setting, but as soon as a speech-utterance

is observed by the linguist outside of its situational setting and as soon as the frame of reference of the speaker is not taken into account the utterance becomes for him uninterpretable, that is, it becomes ambiguous." The examination of conversational transcripts (by experimenter and raters) is an example of just such a "reversal of the normal sequence of events" (Stenning, 1978). Thus, whilst pronouns may be classified as exophoric by an outsider on the grounds of omission of the mention of the original reference, any lack of clarity and cohesion is likely to be signalled by a response on the part of the listener such as a question of the type "Which man?", or a paralinguistic query such as "Uh?" Therefore, particular attention will be paid to the ambiguity that is signalled by questions.

It is possible to predict that situations particularly conducive to exophoric usage will not also be characterised by an increase in responses making use of the interrogative pronouns "Who?" "What?" and "Which?"

5.2.3 Classification of reference items (After Hasan, 1968)

The following items are included in the analysis of exophoric and anaphoric usage.

1. Pronominals

   a) Personal pronouns: I/me, you, he/him, she/her, it, we/us, they/them

   b) Possessive pronominals : mine, yours, his, hers, its, ours, theirs

   c) Possessive determiners: my, your, his, her, its, our, their.

2. Demonstratives

This, these, that, those

3. Demonstrative adverbs

Here, there

4. Interrogative pronouns

Who? What? Which?

Generally speaking, if a referent is named in the text at any point prior to the reference item, then that item is classified as "anaphoric". If the referent follows the reference item in the same sentence, then the classification is "cataphoric". Only if no referent appears in the text at any point is a reference item classed as "exophoric".

Since the "absence of any verbal referent for I... does not lead to any sense of incompleteness" (Hasan 1968, p.34) occurrences of the first personal pronoun (singular) are always classed as anaphoric.(1) In the unpopular conversation ("Independence for Scotland") only, "we" and "us" are also classed as anaphoric throughout, as they clearly refer to "Scotland" or "the Scots". Occurrences of the pronoun "you" are regarded as being exophoric (there being 2 listeners in each group) except when a particular addressee is specified e.g. "What d'ye think, Davie?" These occurrences are classed as cataphoric. "It", apart from "the universal meteorological operator" (Hasan, 1968, pp.39-40) "it" in "it's raining" which is classified as exophoric, may be classified as anaphoric, cataphoric or exophoric according to usage. All other

(1) This procedure was followed by Hasan (1968).

personal and possessive pronouns and determiners (with the exception of "my" and "mine" which are always taken as being anaphoric) may carry the classification of anaphoric, exophoric or cataphoric as appropriate. Demonstratives are likely to be classified as exophoric with some object in the environment acting as reference, although anaphoric classification is possible particularly for "this", "these", "that" and "those". Interrogative pronouns are taken to be exophoric.

5.2.4 Treatment of results and statistical analysis

Using the transcripts of conversations from chapter 3 (Pronoun Study) numbers of occurrences of anaphoric, cataphoric and exophoric examples of each of the above reference items were counted and converted to proportions of total words in order to effect a comparison between groups. Once again a regression analysis was used (for details of this analysis and reasons for its use, see 3.2.3, Chapter 3.)

Cataphoric references do not contribute to text cohesion (Hasan, 1968), but neither can they be said to contribute to ambiguity, thus, following the practice of Francis (1974) instances of cataphoric use, being in any case very infrequent (0.99% of all references made) were taken together with the anaphoric references. Examples of anaphoric possessive pronouns were also combined with other examples of anaphoric use, creating an "Anaphoric pronoun group" (AP group) consisting of anaphoric personal pronouns, anaphoric possessive pronouns and cataphoric pronouns. Similarly, exophoric personal pronouns were combined with exophoric possessive pronouns, and together with examples of interrogative pronouns formed the "Exophoric pronoun group" (EP group). Interrogative pronouns encountered in the conversations were of two types, namely either "disambiguating" such as those directly following an example

of exophoric usage, or "information seeking", where they appear to mark a change of topic or direction in the conversation. A separate analysis of interrogative pronoun use was carried out in order to investigate any group differences in possible responses to ambiguity. Anaphoric and exophoric demonstratives were treated separately.

Two or three examples of the "narrative 'this'" occurred in the conversations -

e.g. "There was this man...."

Such occurrences were very infrequent and were classed as exophoric though not strictly comparable with "true" exophoric usage. No example of the "universal meteorological operator" was encountered.

Levels of significance associated with percentages of variance explained

Levels of significance derived from $_{c}R$ values for 29 d.f. provided by the NS analysis are as follows :

18.48% explained is significant at the 0.05 level
28.55% explained is significant at the 0.01 level

5.3 Results

5.3.1 Percentages of pronouns in the anaphoric and exophoric groups

Table 5.1(a) shows the mean percentages and standard deviations of anaphoric and exophoric group pronouns expressed as percentages of total words for all groups. First and second conversations are again treated separately. Although there is no very clear picture with regard to the relative importance of the independent variables, what is apparent is

Table 5.1(a)

Anaphoric and exophoric group pronouns expressed as percentages of total words: Means and Standard Deviations

(1) = First recorded conversation
(2) = Second recorded conversation

Popular Conversation

	Working Class				Middle Class			
	Anaphoric Group		Exophoric Group		Anaphoric Group		Exophoric Group	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Hi	9.80	10.91	3.48	4.72	11.05	10.49	3.14	3.63
	(0.95)	(8.65)	(1.20)	(4.36)	(S = 2.64)	(S = 1.87)	(S = 1.39)	(S = 1.79)
	N = 5	N = 4	N = 5	N = 4	N = 5	N = 4	N = 5	N = 5
Lo	9.47	8.34	3.89	3.89	8.02	7.32	3.08	4.84
	(5.56)	(S = 3.10)	(S = 2.40)	(S = 0.86)	(S = 1.00)	(S = 3.37)	(S = 0.85)	(S = 2.67)
	N = 4	N = 4	N = 4	N = 4	N = 4	N = 5	N = 4	N = 5

Unpopular Conversation

Hi	10.29	9.61	2.40	4.59	11.39	9.45	3.16	3.78
	(S = 2.83)	(S = 4.97)	(S = 2.62)	(S = 1.28)	(S = 1.97)	(S = 2.71)	(S = 1.67)	(S = 2.16)
	N = 4	N = 4	N = 4	N = 4	N = 4	N = 5	N = 5	N = 5
Lo	9.58	8.12	1.83	2.60	11.24	7.44	3.99	4.07
	(S = 2.25)	(S = 1.78)	(S = 0.35)	(S = 1.71)	(3.03)	(S = 2.70)	(0.99)	(S = 1.25)
	N = 4	N = 5	N = 4	N = 5	N = 4	N = 5	N = 4	N = 5

that there is an overall greater use of anaphoric reference than exophoric reference. This observation applies to all conditions. With one exception (Popular conversation working class high affiliation group) there is a slight decrease in proportion of anaphoric reference between the first and second recorded conversations, and an increase in the exophoric group references in 7 out of the 8 conditions. (There is no change in the proportion of use noted for working class low affiliation groups in the popular conversations). This would suggest that the variable "affiliation" is again of some importance, with increasing exophoric usage developing as common ground is established over the first conversation. Looking at the Hi and Lo affiliation groups, an "affiliation effect" is observed in that there is an overall greater usage of anaphoric reference by Hi affiliation groups. This pattern is not as clear for exophoric usage where 3 of the 4 middle class conditions (middle class popular conversation (2), middle class unpopular conversations (1) and (2)) show the reverse trend, namely the Lo affiliation groups use more exophoric reference than their Hi affiliation counterparts. Three of the four working class conditions show an overall greater usage of exophoric reference by Hi affiliation groups, with only working class popular conversation (1) showing the reverse trend. Any effects of social class are not clear cut, but no indication of greater working class exophoric usage is apparent.

Unfortunately, the regression analyses indicate that only very small percentages of variance are explained by the independent variables (14.9% for the anaphoric pronoun group in the first conversation, 14.88% for the comperable exophoric group, 10.75% for the anaphoric group in the second conversation and 9.51% for the second conversation exophoric pronoun group). Further analysis of the Newton-Spurrell coefficients was, therefore, not carried out.

5.3.2 Anaphoric and exophoric demonstratives (This, that, these, those)

The mean percentages of anaphoric and exophoric demonstratives, together with standard deviations, are shown in Table 5.2(a). As can be seen, these reference items were not widely used in the conversations recorded. In fact, in 18 of the 72 conversations (25%) no examples of anaphoric demonstratives were found, and similarly in 20 conversations (27.78%) there were no examples of exophoric demonstratives. In 7 of the 8 conditions, a larger percentage of anaphoric demonstratives was found in second conversations than in first. (Only in the middle class unpopular conversation Lo affiliation group did the reverse apply). A similar pattern is observable for exophoric demonstratives, again more being found in second conversations than first, generally speaking (in only working class unpopular Lo and middle class unpopular Lo groups did this not apply). This finding again suggests that the process of talking together in the first conversation is affecting the form of second conversations. That is to say, once again affiliation effects are in evidence. Looking simply at affiliation differences in anaphoric demonstrative use in first conversations, this claim is not supported, however, half of the examples indicating slightly fewer examples of anaphoric usage in Hi affiliation groups than in Lo affiliation groups. In the second conversations all Hi affiliation groups are seen to use more examples of anaphoric demonstratives than Lo affiliation groups however. A similarly varied pattern obtains for first conversation proportions of exophoric demonstrative use (half the groups indicating greater use in the Lo affiliation conditions) suggesting either a complex popularity-class-affiliation interaction, or that uncontrolled variables (e.g. individual differences) outweigh any planned group effects. Only in second unpopular conversations of working class groups do we find a greater exophoric demonstrative usage in Lo affiliation groups.

Table 5.2(a)

Anaphoric and exophoric demonstratives expressed as percentages of total words: Means and Standard Deviations

(1) = First recorded conversation
(2) = Second recorded conversation

Popular Conversation

	Working Class				Middle Class			
	Anaphoric Demonstrs.		Exophoric Demonstrs.		Anaphoric Demonstrs.		Exophoric Demonstrs.	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
Hi Affil.	0.56 (0.58) N = 5	0.76 (0.86) N = 4	0.28 (0.28) N = 5	0.42 (0.36) N = 4	0.74 (0.73) N = 5	1.38 (0.56) N = 4	0.28 (0.23) N = 5	0.55 (0.34) N = 4
Lo Affil.	0.65 (0.26) N = 4	0.68 (0.45) N = 4	0.31 (0.31) N = 4	0.38 (0.30) N = 4	0.38 (0.38) N = 4	0.83 (0.79) N = 5	0.20 (0.22) N = 4	0.45 (0.06) N = 5

Unpopular Conversation

Hi Affil.	0.53 (0.72) N = 4	0.61 (0.50) N = 4	0.59 (0.68) N = 4	0.25 (0.29) N = 4	0.12 (0.17) N = 5	0.69 (0.52) N = 5	0.35 (0.25) N = 5	0.43 (0.06) N = 5
Lo Affil.	0.14 (0.17) N = 4	0.57 (0.59) N = 5	0.17 (0.33) N = 4	0.79 (0.76) N = 5	1.24 (0.99) N = 4	0.40 (0.46) N = 5	0.75 (0.53) N = 4	0.30 (0.27) N = 5

Table 5.2(b)

Anaphoric demonstratives as a proportion of total words

25.93% explained

Variables	Sum of Elements	% Age
8 9 10 11 12 13	3.513888	100
8 9 10 * 12 13	3.492228	99.38
8 9 * 11 12 13	3.325682	94.64
8 9 * * 12 13	3.296973	93.83
8 9 10 11 12 *	3.123199	88.88
8 9 10 * 12 *	3.109072	88.48
8 9 10 11 * 13	2.982557	84.88
8 9 10 * * 13	2.969532	84.51
8 9 * 11 12 *	2.929427	83.37
8 9 * * 12 13	2.909482	82.80
8 * 10 11 12 13	2.89544	82.40
8 * 10 * 12 13	2.872108	81.74
8 9 * 11 * 13	2.787855	79.34
8 9 * * * 13	2.769211	78.81
8 * * 11 12 13	2.739907	77.97
8 * * * 12 13	2.710015	77.15
8 9 10 11 * *	2.489372	70.84
8 9 10 * * *	2.483158	70.67
8 * 10 11 12 *	2.457833	69.95
8 * 10 * 12 *	2.442715	69.52

Totals
20 14 12 10 14 12

8 Popularity
9 Affiliation
10 Class
11 Popularity-Affiliation
12 Popularity-Class
13 Affiliation-Class

It must be noted that in all cases the percentage of variance explained by the 3 independent variables and the first order interactions is very small, only reaching significance in the second conversations for anaphoric demonstratives (25.93%).

Thus the Newton-Spurrell analysis was continued only for this group. Table 5.2(b) displays the results of this analysis of multiple regression data for anaphoric demonstratives in second conversations.

In accounting for variance in anaphoric demonstrative usage in second recorded conversations, variable 8 (Pop.) appears to be the most important, though two additional variables are necessary to make up a substantial contribution to the attributable variance. For example, variable 8 (Pop.), variable 9 (Affil.) + variable 12 (P-C) together account for 82.80% of variance.

Results of this analysis again hint at the importance of familiarity as a predictor of anaphoric reference, though in this case familiarity with the topic of conversation appears to be more important than familiarity with the other participants in the conversations. Whilst the variable "class", on its own, appears to play no part in influencing the pattern of anaphoric/exophoric reference it may play some small part, in interaction with topic. The overall percentage use of anaphoric/exophoric demonstratives for all conversations in all conditions is shown below (Table 5.2(c)).

Table 5.2(c)

Anaphoric/Exophoric demonstratives
(Expressed as percentages of total words)

	Working Class	Middle Class
Anaphoric	0.58%	0.63%
Exophoric	0.41%	0.37%

Whilst both working class and middle class subjects use more anaphoric demonstratives than exophoric, the working class groups use relatively more exophoric demonstratives than their middle class peers.

5.3.3 Interrogative Pronouns

Table 5.3(a) shows the mean percentages of interrogative pronouns used in the two conversations, together with the standard deviations. A larger proportion of such pronouns tends to be found in the first conversations of working class groups, with a greater overall use being made in popular conversations. Questions may form part of the process of establishing common ground and forming impressions of little or unknown conversational partners. The same pattern is found in unpopular conversations amongst middle class boys, where larger proportions of interrogative pronouns are found in first recorded conversations. In popular middle class conversations, however, the reverse picture is observable, namely the larger percentage of interrogative pronouns are to be found in second recorded conversations. This, perhaps, suggests a rather different kind of usage of interrogative pronouns by the 2 groups, with working class boys focussing on initial information gathering about people, but middle class boys, when interested in the topic of conversation, using questions to gather information about things. We shall return to this question later. Overall, popular conversations appear to involve more questions involving interrogative pronouns than unpopular ones (with only second conversations of WCH groups and first conversations of MCL groups reversing this state of affairs). There appear to be no obvious simple social class effects, though class may be interacting with topic, as is suggested by Figures 5.1, 5.2, 5.3 and 5.4.

Table 5.3(a)

Interrogative pronounds as percentages of total words in the two conversations: Means and Standard Deviations

Popular Conversations

	Working Class			Middle Class		
	(1)	(2)	Overall	(1)	(2)	Overall
Hi	1.41	0.66	1.04	1.00	1.32	1.16
	(S = 0.94)	(S = 0.51)	(S = 0.82)	(S = 0.56)	(S = 1.59)	(S = 1.14)
	N = 5	N = 4	N = 9	N = 5	N = 4	N = 9
Lo	1.48	0.95	1.39	0.31	1.24	0.72
	(S = 0.51)	(S = 0.83)	(S = 0.54)	(S = 0.65)	(S = 2.14)	(S = 1.47)
	N = 4	N = 4	N = 8	N = 4	N = 5	N = 9

Unpopular Conversations

	Working Class			Middle Class		
	(1)	(2)	Overall	(1)	(2)	Overall
Hi	0.74	1.26	1.00	0.58	0.16	0.39
	(S = 0.85)	(S = 0.72)	(S = 0.78)	(S = 0.73)	(S = 0.18)	(S = 0.57)
	N = 4	N = 4	N = 8	N = 5	N = 5	N = 10
Lo	0.48	0.14	0.31	0.83	0.41	0.55
	(S = 0.67)	(S = 0.12)	(S = 0.48)	(S = 1.09)	(S = 0.65)	(S = 0.78)
	N = 4	N = 5	N = 9	N = 4	N = 5	N = 9

FIGURES 5.1 - 4

Popularity, Class and Affiliation Effects in use of Interrogative Pronouns

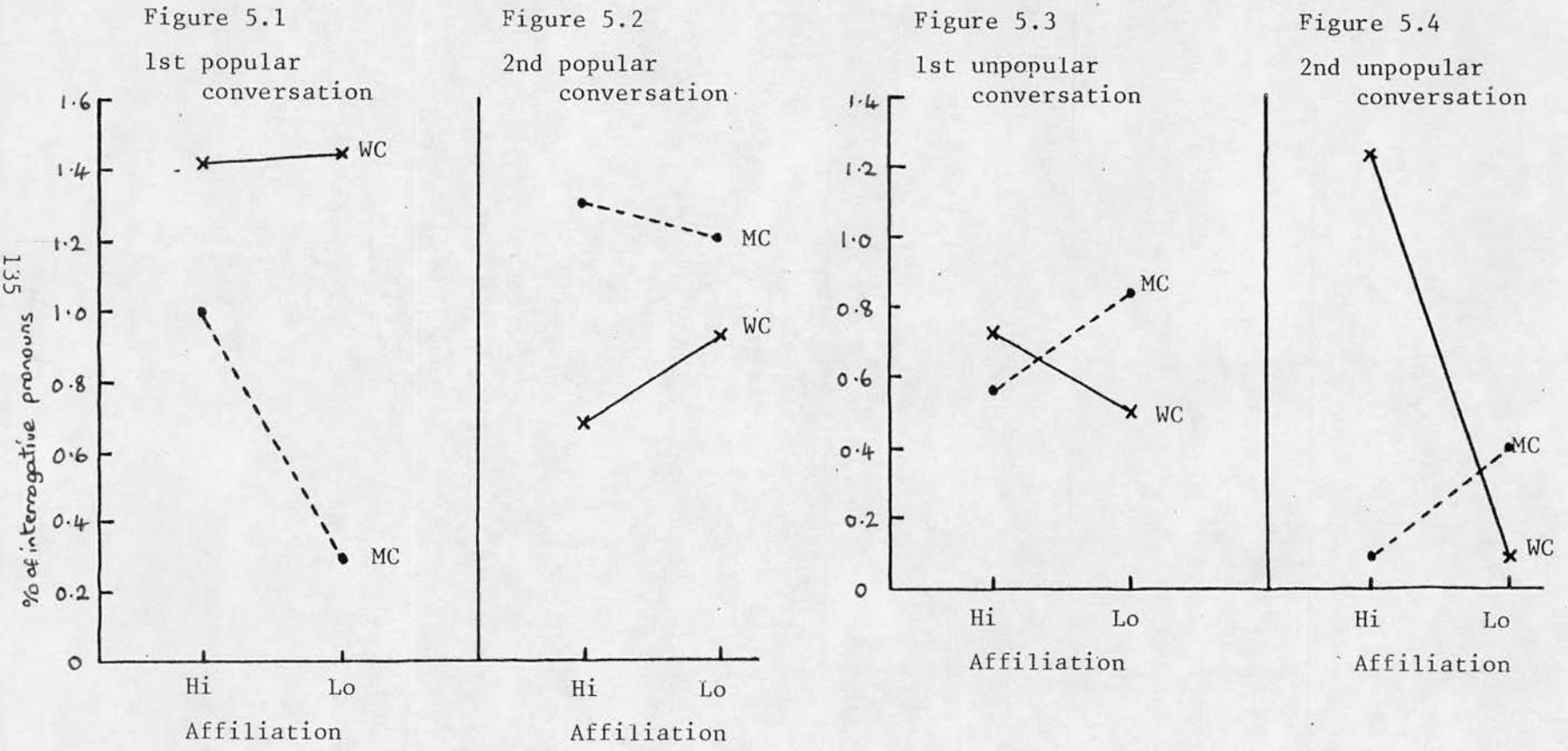


Table 5.3(b)

Interrogative pronouns as proportion of total words

23.22% explained

Variables	Elements	% Age
8 9 10 11 12 13	4.887961	100
8 9 10 11 12 *	4.812208	98.45
8 9 10 * 12 13	4.682344	95.79
8 * 10 11 12 13	4.630003	94.72
8 9 10 * 12 *	4.594675	94.00
8 * 10 11 12 *	4.550491	93.10
8 * 10 * 12 13	4.374406	89.49
8 * 10 * 12 *	4.28077	87.58
---		
8 9 * 11 12 13	3.77967	77.33
8 9 * 11 12 *	3.748163	76.68
8 * * 11 12 13	3.564649	72.93
8 * * 11 12 *	3.530221	72.22
8 9 * * 12 13	3.467044	70.93
* 9 10 11 12 13	3.45997	70.79
* 9 10 11 12 *	3.4303	70.23
8 9 * * 12 *	3.427822	70.13
8 9 10 11 * 13	3.407109	69.70
8 9 10 11 * *	3.305891	67.63

Totals

16 12 12 12 16 9

8 Popularity

9 Affiliation

10 Class

11 Popularity-Affiliation

12 Popularity-Class

13 Affiliation-Class

Table 5.3(b) lists the elements and percentages of attributable variance derived from the Newton-Spurrell coefficients for interrogative pronouns in the first conversation. The table suggests that variable 8 (Pop.) plus variable 12 (P-C) are the most important in explaining the results obtained. Together they contribute 64.53% of the 23.22% of attributable variance. There appears to be little difference as to which combination of remaining variables is present. Thus, the analysis suggests that in the case of interrogative pronouns, topic is a major influence on usage, and that social class, whilst not important on its own, together with popularity (in the P-C interaction) is influential.

5.3.4 Results Summary

Due to the very small percentages of variance attributable to the independent variables it has not been possible to draw any firm conclusions concerning the patterns of use of pronouns of the anaphoric and exophoric groups.

Overall, very small use was made by the boys of anaphoric and exophoric demonstratives, and a significant contribution to the attributable variance was made only in the case of anaphoric demonstratives in second conversations. Here it was found that the popularity variable made the major contribution to attributable variance, whilst variables of minor importance were found to be affiliation and the P-C interaction.

The results of the investigation into the use of interrogative pronouns indicated that a significant contribution to attributable variance was made only in first conversations where the popularity variable again emerged as being of major importance. The P-C interaction again made a minor contribution to attributable variance.

5.4 Discussion

While the topic variable was not found to be influential in the overall use of personal pronouns (Chapter 3), it was, nonetheless, hypothesised above (5.2.2) that a popular topic would be likely to lead to a greater proportion of exophoric reference than would an unpopular one. It can be seen that the present analysis provides some support for this prediction. The variable "popularity" is seen to be of major importance in accounting for the attributable variance in the two analyses carried out. It was also predicted (5.2.2) that a high degree of affiliation would be likely to increase exophoric reference, and that therefore, a greater degree of exophoric reference would tend to characterise second recorded conversations. While we were not able to test this particular hypothesis fully due to non-significant proportions of explained variance, the comparison of mean percentages of AP and EP group pronouns hints at an increase in exophoric reference in second conversations as predicted. The significance of the result concerning the use of anaphoric demonstratives is not immediately obvious. It is unfortunate that explained variance associated with companion analyses failed to reach a significant level. We cannot fully assess the impact of any independent variable from such incomplete data. However, the importance of the popularity variable is supported by the Newton-Spurrell analyses. The results suggest that the social class variable is not important on its own, though it does appear in interaction with the popularity variable in both analyses carried out. The question of interrogative pronoun usage and ambiguity cannot be answered simply. Table 5.3(a) and the results reported above suggest a complex situation to which we shall return shortly.

It has been argued that one of the most salient features of a skill (of which conversation must be regarded as an example) is quantity, namely the frequency or duration of the

exercising of the skill (Lewis & Rosenblum, 1977). It is, therefore, perhaps important to look at the varying lengths of conversations, and to ascertain whether any patterns exist in respect of this feature of the conversational skill. Table 5.4 shows the mean total number of words per conversation. It can be observed that differences in conversation length are more marked in working class groups, with unpopular conversations being very much shorter. (This pattern also occurs in middle class low affiliation groups). The shortest conversations of all, as might be predicted, are unpopular first recordings. The influence of affiliation hinted at in the difference between unpopular conversation lengths of MCL groups and MCH groups is also echoed in the drop in unpopular conversation lengths of working class groups when these are recorded second. In this case, the drop in length is more marked in WCH groups (884.50 words to 365.50 words cf 835.25 to 530.50 for WCL groups). This might suggest that WCL groups are continuing to gather information about each other in second conversations.

The present study has not yet looked at the question as to whether or not exophoric reference is associated with ambiguity and confusion on the part of listeners. Kail & Leveille (1977) suggest that, whilst anaphoric pronominal reference is understood earlier than exophoric reference (as one would expect), ambiguity of reference of pronouns is not detected spontaneously before the age of 14.5 years. This may, indeed, be the case in the setting of a laboratory word test task but the occurrence of questions in response to ambiguous exophoric reference recorded in the present study, together with the apparent cohesion and coherence of the conversations would suggest otherwise. "Disambiguation" has been defined as "selection of a particular and contextually appropriate sub-region of the area of meaning potentialities" (Rommetveit, 1971). In this discussion "disambiguation" is

Table 5.4

Mean Total Number of Words per Conversation: Standard Deviations in Brackets

(1) = First recorded conversation
(2) = Second recorded conversation

Popular Conversation

	Working Class		Middle Class	
	(1)	(2)	(1)	(2)
Hi	884.50 (S = 653.45) N = 5	1169.50 (S = 750.28) N = 4	856.20 (S = 718.13) N = 5	850.80 (S = 550.45) N = 4
Lo	835.25 (S = 535.54) N = 4	927.25 (S = 392.09) N = 4	946.60 (S = 550.72) N = 4	855.75 (S = 573.00) N = 5

Unpopular Conversations

Hi	262.75 (S = 216.84) N = 4	365.5 (S = 362.93) N = 4	829.20 (S = 872.95) N = 5	838.50 (S = 592.23) N = 5
Lo	228.00 (S = 162.57) N = 4	530.50 (S = 505.08) N = 5	396.25 (S = 325.18) N = 4	681.33 (S = 599.04) N = 5

taken to involve not only the process of extracting given and new information from an utterance and searching in the memory for a unique reference of given information signalled by a pronoun or a demonstrative, but also extended to include the strategy of asking for clarification of the speaker when other strategies have failed i.e. asking a question. It is also possible, that, on failing to find the unique referent, the listener may add what Clark & Sengul (1979) call a "plausible bridging assumption" on the basis of the "cooperative principle" (Clark & Clark, 1977), namely the assumption that the speaker has made the utterance relevant to the ongoing discourse.

The making of such bridging assumptions may account for examples of what may be described as "technical ambiguity" occurring in conversations. This term is to be used to describe referents rated as exophoric pronouns or demonstratives, but whose referent is clearly available to participants, in that the conversation continues smoothly after the occurrence of the exophoric item.

Examples

(1) Ah, it was a shame ... really ... fer that old man Willy Bald.
It's a shame that, aye

"It" is never made explicit. The status of the second occurrence of "that" is also unclear.

(2) Well I thought they were certainly going to blow it
They just scored

This conversation concerns a Rangers-Celtic match. "They" refers to one of the teams and is technically imprecise, though completely clear to participants in the conversation.

Examples such as those listed above suggest that the imprecision of exophoric reference in some cases at least, may he more "apparent than real" in that ambiguity is not always experienced by the participants in the conversation.

WH-questions (of which those introduced by the interrogative pronouns "Who?" "What" and "Which?" are examples) are described by Clark & Clark (1977) as requests for specific pieces of information. In the resolution of ambiguity the piece of information required is the identity of the unique referent associated with an ambiguous reference.

The results of the analysis of reference in the present study suggested that in both first and second conversations popularity of topic and the P-C interaction were important variables in accounting for the attributable variance in use of interrogative pronouns. In order to investigate further both the process of disambiguation and the nature of the social class influence in interrogative pronoun use, interrogative pronouns were further classified as shown in Table 5.5.

It is clear that whilst use of classes I(a), I(b) and I(c) may be regarded as some indication of ambiguity, only classes I(a) and I(b) are linguistic in nature (Class I(c) being termed "operational ambiguity"). Thus only classes I(a) and I(b) can indicate Bernstein's "lack of specification in communication". It cannot be argued that classes II and III are responses to ambiguity rather, particularly in the case of Class II interrogatives that they are acting in a very positive way by providing a smooth continuation of the interaction. In order to investigate further the claims concerning ambiguity in working class language caused by exophoric reference (insofar as this ambiguity is signalled by disambiguating interrogative pronouns), it is necessary to know the percentages of different classes of interrogative pronouns used by the two

Table 5.5

Classes of Interrogative Pronouns (IPs)

I Disambiguating

a) following an exophoric pronoun or demonstrative
b) following the definite article
c) following 2 people talking at the same time

(a) + (b) may be termed "linguistic ambiguity"
(c) may be termed "operational ambiguity"

II Information or Opinion Seeking

III Expressing disbelief, surprise

IV IPs of uncertain status

Examples of each of the classes

I (a) It's more than that
What? (MCH Pop.)

Ah never went back te that park for about a week.
Which park? (MCH Unpop.)

I(b) I'll save ma money ... an' go te th' match in two week's time.
What match's that? (WCH Pop.)

I(c) "What?" or "What's that?" following a "duet"

II Wha' d'ye think Jimmy? (WCH Pop.)
Who's goin' te athletics? (MCH Pop.)
What happens when all the coal ... an' all the oil is gone? (MCL Unpop.)
Who ye' play'n. (WCH Pop.)
What kind o' sports d'ye like the best?
Who d'ye think'll win the Sco'ish cup?

III Don' like swear'n!
Wha? (MCL Unpop.)

IV They're playin'
What? (WCH Pop.)

Here "What?" could be information seeking or following a lapse in concentration or conceivable disambiguity, referring to "They". The context of the transcript does not allow a decision to be made among the alternatives .

Table 5.6

Percentages of IP's from each class of IP used by the 2 SEC groups

	Working Class		Middle Class	
Class of IP				
I (a)	2.71)	3.61	2.11)	2.41
I (b)	0.90)		0.30)	
I (c)	3.00		2.10	
Total	6.61		4.51	
II Info/Opinion	53.75		32.73	
III Disbelief	0.60		0.90	
IV Uncertain Status	0.60		0.30	
Ratio $\frac{\text{Info. seeking}}{\text{Disamb.(a)+(b)+(c)}}$ (linguistic + operational ambig).	8.14		7.27	

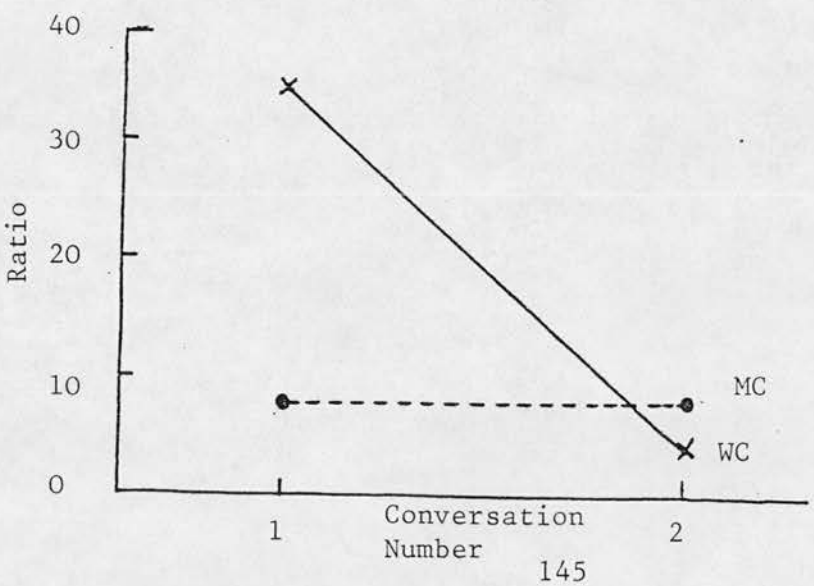
Ratios for the two conversations separately

1st Conversation	33.67	7.25
2nd Conversation	4.11	7.29

social class groups. These percentages are shown in Table 5.6. The most striking finding is the very large percentage of Class II (information and opinion seeking) interrogative pronouns used by the working class boys. This class is also the single largest class for the middle class subjects, but middle class subjects use these interrogative pronouns only 32.73% of the time compared with a working class usage of 53.75%. In neither social class group do we find frequent use of the disambiguating categories I(a) and I(b). A further interesting observation is the marked difference for working class subjects between the ratio of information seeking to disambiguating (I(a) + (b) + (c)) interrogative pronouns in the first conversation as compared with the second. This would tend to suggest that the information sought in the first conversation relates to fellow participants rather than to the topic of conversation, there being a drop in the ratio for second conversations when such information of a personal and impressionistic nature might be taken for granted. Had the information sought related to the topic of conversation, there is no reason why such a difference should result. The middle class ratio remains constant over conversations. This cross over is illustrated in Figure 5.5.

Figure 5.5

Ratio of $\frac{\text{Information seeking IPs}}{\text{Disambiguating IPs I(a) + I(b) + I(c)}}$ by class and conversation



Taking the truly disambiguating cases of interrogative pronoun use separately (namely Classes I(a) & I(b)), it may be observed that there is a small working class "lead" in usage (3.61% for working class compared with 2.41% for middle class). This small difference can hardly constitute a case for claiming a working class deficit in communicative ability. It is, in any case, possible to argue that it is only subjects who can both recognise and devise an adequate plan to deal with ambiguity who are likely to respond to an inexplicitness in the conversation with a question asking for clarification. Kail & Leveille (1977), it is to be remembered, claim that ambiguity of pronominal reference is not spontaneously detected until after the age of the subjects in the present study. Recent research into referential communication emphasises the importance of listener skills, and "knowing when and how to request additional information" (Patterson et al., 1978) is one such skill. Listener feedback effects have been investigated in a number of recent studies (e.g. Peterson et al., 1972) who looked at explicit and implicit questions; Karabenick & Miller (1977) who observed that listener feedback gave rise to better messages; Patterson et al (1978) who devised "action plans" involving requests for further information; Patterson & Massad (1980) who observed that successful questioning on the part of the listener tended to lead to an increase in the communicative accuracy of the speaker). Ironsmith & Whitehurst (1978) devised a study involving several modelling conditions all of which led to an increased number of questions being asked by children of 5.8 and 7.10 years in response to ambiguous messages (the older children benefitting more). Thus, there seems to be many indications that to recognise ambiguity and seek additional information to resolve it is a useful listener skill. The exact significance of the marginal working class "advantage" in question asking is by no means clear (if indeed statistically significant at all), but it is as plausible to

argue the "listener skill" case as it is to propound the "communication deficit theory". Clearly this, together with the "delineation of classes of appropriate responses" (Marshall, 1970) is an important area for further research.

5.5 Conclusion

The analysis of anaphoric and exophoric reference occurring in conversation gives no clear support for the working class communication deficit hypothesis. As in Chapter 3, the affiliation and popularity variables account for more of the variance attributable to the independent variables of the study than does the variable "class" on its own. A further study of questions in the more informal setting of a conversation is recommended.

FUNCTIONS OF LANGUAGE

6.1 Form and Function

> "It is the pragmatic use of speech within the context of action which has shaped its structure".
>
> (Malinowski, 1935)

> "Pragmatic functions stand near the heart of language in use".
>
> (Pride, 1971)

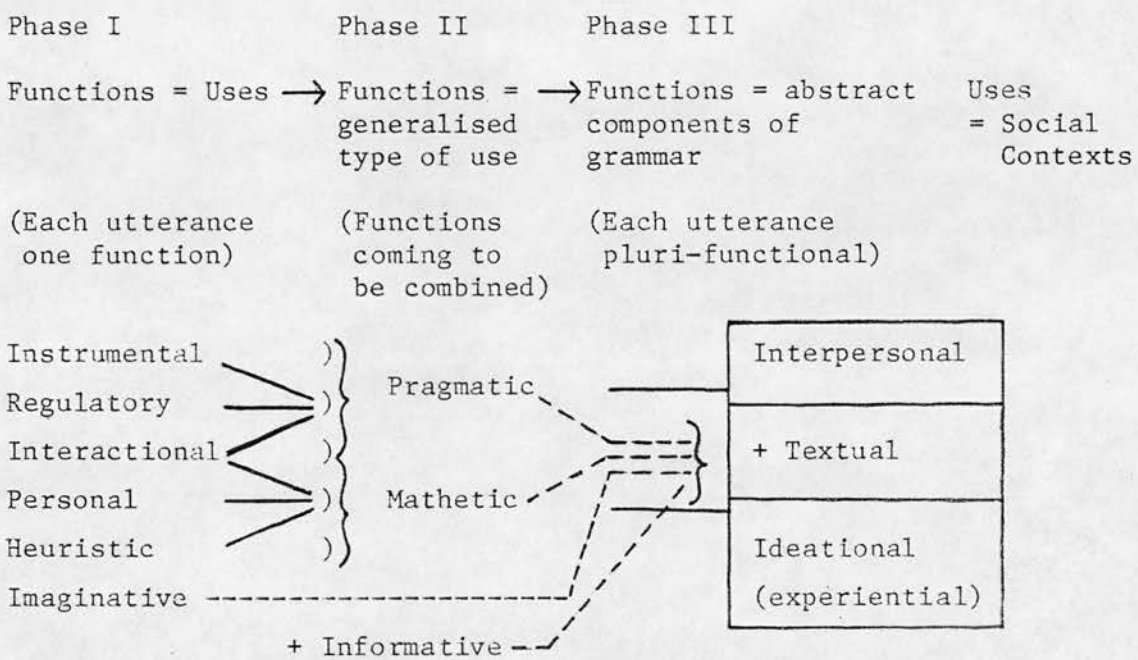
Previous chapters (particularly the Pronoun Study, Chapter 3 and the Study of Conversation, Chapter 4) have paid rather more attention to the form of conversational language of 13 year old Edinburgh boys under different experimental settings, than to the functions which the boys hoped to fulfil by using the particular form of language they chose. Recent research into speech and language has moved towards an emphasis on "pragmatics", a term whose meaning can vary from simply "the use of language in a variety of communication situations" (Heinig, 1977) to a rather more technical formulation as in Halliday (1975). Here "pragmatic" refers to a macro-function which demands a response, and is differentiated from "mathetic" forms which do not. Though we shall return to Halliday's work on functions of language shortly, the simpler conception of "pragmatic" will suffice for the time being. The present analysis, then, emphasises pragmatics, and will focus on the functions and uses of language rather than on word counts and grammar.

It has also been claimed (Hall & Guthrie, 1979) that a confusion exists between the terms "function" and "use", and it is certainly not immediately obvious wherein lies the difference between the two terms. Again, Halliday (1975) draws a distinction. A "set of simple, unintegrated uses of

language" characterise the speech of very young children (those still in the first of his three phases of development. For details see Halliday, 1975, p.51), whereas functions are associated with adult speech and constitute "highly abstract integrated networks of relations that make up the adult language system". The relationship between the two terms is shown in Figure 6.1.

Figure 6.1

Development of Functions of Language
(after Halliday 1975, p.158)



The present analysis will focus on both the individual uses of language and on higher order groupings of such uses which correspond to Halliday's macrofunctions.

Both of the views expressed at the opening of this chapter presuppose a close link between what may be described as the form and function of speech. Malinowski's claim is bolder than that of Pride, in that he makes clear the direction of

this close link, namely he claims that it is language use which determines spoken language structure. At the 1978 Stanford Child Language Forum, Bates is equally explicit, and describes much current psycholinguistic research as "functionalist" because of the stress on "function as the cause of form." In functionalist research, she claims, explanations for linguistic structure are to be sought in "language-external causes" (which she names as non-, extra-, or para- linguistic factors which operate in the communicative situation). This state of affairs she contrasts with the earlier formalist approach where explanation is sought through "layers of language-internal description." Thus, the present analysis may be described as "functionalist", whereas those analyses reported in previous chapters may claim the description of "formalist".

If we are to claim a relationship between function and form we can follow the lead of Garvey and Dickstein (1972) and investigate the extent to which "differences in the lower levels of language form may be traced in the increasingly complex levels of language use", (p.376). The results of previous analyses (reported in Chapter 3) have suggested that a familiarity with either participants or topic of conversation has a greater overall influence on pronoun usage than does the variable social class, but that in the cases of total number of pronouns used and the first person singular pronoun "I", some effects of class could not be discounted. (A greater overall use of pronouns was a feature of working class conversations, whilst the use of "I" was slightly greater in middle class groups). Furthermore, similar topic and affiliation effects were noted in the study of reference (Chapter 5), but again some effect of the class variable was evident (though not directly) in the popularity-class interaction which was also found to be of some importance in "explaining" the variance. The affiliation-class interaction was suggested (and partly supported by the regression

analyses) in the conversation structure study (Chapter 4). Thus, if the relationship between function and form is as close as has been suggested, we might expect to find some similarities between the results of earlier more "formal" analyses and those of the present "functionalist" study.

6.2 Taxonomies of Language Functions

Whereas, in the field of research into spoken language, prospective researchers in the past had a relatively small choice of language "functions" at their disposal (e.g. Piaget's egocentric speech, Vygotsky's social speech), it is now the case that there exists a plethora of taxonomies, such that classification of the taxonomies themselves might be thought necessary. There now exist taxonomies of speech functions appropriate to any and all age groups, as well as those that vary along a continuum from what might be described as parsimonious to eclectic.

Taking the first sub-group, namely those taxonomies appropriate to particular age groups, Dore (1975) differentiated a number of "primitive speech acts" (labelling, repeating, answering, requesting action or answer, calling, greeting, protesting and practising) in children of approximately one year of age. Dore's taxonomy was purportedly used in a study of 3-year old language development by Wells (1976) although the resulting classification of the purposes of "the superordinate conversational sequences" of which utterances were a part bears only passing resemblance to Dore's list. Wells' classification of purposes lists control, expressive, representational, social, tutorial and procedural. A more recent offering (Braunwald, 1980) proposes only four "forms of speech" (private, social, egocentric, and socialised) in a "range of language use model" which attempts to explain the existence of contextual variation in the form of children's speech. In Braunwald's longitudinal study her

two daughters were the subjects of investigation. Over the period of study their ages ranged from between 1 and 6 years of age and from 4 to 9 years respectively. As part of a paper entitled "Creative Drama as an Aid in Children's Development of Communication Strategies", Heinig (1977) lists five "families" of communication functions (identified by Allen and Brown, 1976). These "dominant uses" of language include controlling, feeling, informing, ritualizing and imagining. Though no age limits are set in Heinig's paper, it is addressed (presumably) to any school or youth drama teacher. Some material, however, seemed more appropriate to younger children, and one excerpt quoted was of 2nd grade children (6-7 years old). A more comprehensive study (Barnes & Todd, 1977), investigating communication and learning in small groups of 13 year old school students distinguished four "functional components" of speech acts (after Halliday and the Prague school linguists) at two distinct levels. (See Figure 6.2).

Figure 6.2

Functional Components of Speech Acts
(After Barnes & Todd, 1977)

	Interaction		Cognition
Level One	(i) Discourse moves	(ii)	Logical processes
Level Two	(iii) Social skills	(iv)	Cognitive Strategies

Within each of the four categories, subdivisions into more easily identifiable units such as "responding", "initiating", "extending" and "eliciting" (sub-units of "Discourse Moves") aid the linking of theoretical framework to the transcripts and vice versa.

The second subgroup of taxonomies is mostly made up of classifications of adult speech functions (though Halliday's

emphasis is on child language functions). Perhaps one of the simplest taxonomies in this group is Moscovici's (1967). In his 1967 paper he proposes that there exist but two purposes in transmitting and receiving messages, namely wanting to maintain/change behaviour, or wanting to maintain/change the relationship between participants. Thus, he argues, these two distinct goals involve different interactions, one based on reciprocity, and the other on power. Furthermore, he goes on to elucidate two functions of communication, namely the regulatory function which concerns the conveying of information or the exercising of influence, and the reproductive function which concerns the way in which messages are adapted to the medium of transmission.

The development of Halliday's functions of language has already been mentioned (see above 6.1). His child language functions (listed under Phase 1, Figure 6.1) are Instrumental, Regulatory, Interactional, Personal, Heuristic and Imaginative. A seventh function, the Information function, which is concerned with the communication of Information, Halliday believes is added later to the child's repetoire. We shall return to those child language functions shortly. Halliday lists only three adult functions of language (listed under Phase III, Figure 6.1) namely the Interpersonal, through which the speaker adopts a role vis-à-vis others in the speech situation, the Ideational, through which speakers talk about the real world, and the Textual, which is concerned with the creation of text, and is, therefore, intrinsic to language and tends to be excluded from functional theories of speech.

Henderson (1970) in a study of the reasons mothers give for talking to another adult, divided responses into three areas, the Cognitive, the Interpersonal/Affective and the Social. Again, we shall return to her classification and a brief discussion of her results later.

6.3 Robinson's Functions of Language

Robinson's (1972) classification has a wide variety of sources coming both from within the discipline of psychology itself (for example, he cites Bales' interactional analysis as having influenced his final taxonomy) and from linguistics (e.g. Firth, Halliday and Jakobson). His "final" version (though he acknowledges that no scheme can be described as such) he sees as an extension of Jakobson's. As Robinson's taxonomy was the one found to be both most comprehensive and well suited to the task of analysing the boy's conversations with regard to language use (it includes an "empirical testing procedure against which the significance of any verbal event can be tested") it is reproduced in full in Table 6.1.

Utterances fulfilling function 1 (Verbal Behaviour as a means of avoiding other problems), claims Robinson, are likely to be "fairly heavily sprinkled with well-rehearsed phrases of a ritualistic nature". Function 2 (conformity to norms) refers to the rule governed aspect of speech behaviour, and also bears some relation to function 4 (encounter regulation). Function 3 (aesthetics) is, perhaps, more relevant to the written word, though it is possible that some conversationalists might wish (and be able) to express themselves "beautifully" or more likely be capable of "revelling in witty turns of phrases", as Robinson suggests. Function 5 (performative utterances) derive from Austin (1962) to which work the reader is directed for a full appreciation of what exactly is invoved in this particular category. Briefly, five general classes of performative are listed, namely, Verdictives which are typified by the giving of a verdict, Exercitives which, in Robinson's words, involve the exercising of powers, rights or influence (e.g. ordering, urging, advising), Commissives which commit the speaker to doing something, but also include announcements of intention and "rather vague things" such as "siding with", Behabitives

Table 6.1

Robinson's Functions of Language (1972)

Function	*Everyday name of activity or products*	*Prime focus of verbal act*	*'Primitive' linguistic forms* *General*	*Examples*	*Basis of Evaluation*
1. Avoidance worse activity	Escapism (verbal)	Participants	Any within constraints of context		Saved from other problems?
2. Conformity to norms	Speech and writing	Rule subscription	Any within constraints of context		Did you keep going without awkward silences? Did the corpus appear to be a speech, essay, etc.?
3. Aesthetics	Literature, poetry, drama, novel, rhetoric	Message form	Often well defined, but above rank of sentence. Beyond micro-linguistics	Sonnets; tragedies; fables	Beautiful, insightful, moving?
4. Encounter regulation	Greeting, leave taking	Participant interaction	A finite set of special words, noises, and phrases. Pausing, questions	Hi! Jane! Chow! What do you think?	Attention attracted? Contact made? Flow maintained? Ending satisfactory?
5. Performatives	Promising, betting, etc.	Non-verbal accomplishments	A finite set of semantically associated verbs used in normatively and legally prescribed forms	I name this ship the *Bubbly Bosun*	Intended act performed?
6. Regulation of self (i) behaviour (ii) affect	Talking to oneself, prayer, etc.	Emitter	Abbreviated imperatives?	Now, one teaspoon mustard. Pull yourself together	Is performance in fact facilitated by talking? Is affective state changed or induced?
7. Regulation of others (i) behaviour (ii) affect	Commands, requests, threats, jibes, jokes	Receiver	Imperatives, closed questions, model verbs, etc. A finite set of semantically associated verbs and phrases. Set forms of humour	Jump! Will you . . .? You must . . . If . . . then . . . You creep. Puns; sick jokes	Obedience obtained? Dissuaded? Humiliated? Made to laugh?
8. Expression of affect	Exclamations, swearing	Emitter	Vocatives, swear words, terms of endearment	Oh my love! × × × × !	Do you feel better?
9. Marking of emitter (i) emotional state (ii) personality (iii) identity	– – –	Emitter	Para- and extra-linguistic features; overt statements. Phonology (accent) grammatical, lexical choices	I, I, I think . . . I'm scared. 'otel; ain't no . . . lavatory	Correct diagnosis made or impression conveyed?
10. Role relationship marking	–	Relationship emitter receiver	Rights and duties to use of socially prescribed forms of address, and forms of utterance	Sir! Sweetie! Let us pray	Choice and sequence right for accepted ways of defining roles?
11. Reference to non-linguistic world involving: discrimination, organization, storage, transmission, instruction in spheres of knowledge: (i) logics, (ii) science (iii) ethics, (iv) metaphysics, (v) aesthetics	Many: stating, arguing, reporting, remembering, thinking(?), problem-solving, analysing, processing, synthesizing	Correspondence of verbal act to non-verbal world	Declarative sentence forms	The cat is on the mat. If A, then B! Doggie will bite! All gone, daddy	True or false within premisses of universe of discourse? Is argument valid? Are rules of game followed?
12. Instruction	Teaching	Acquisition new skills by receiver	Various		Did you learn?
13. Inquiry	Questioning	Acquisition knowledge for emitter	Interrogative form	What is he on about?	Does it serve to fill the appropriate gap in your knowledge?
14. Meta-language functions	–	–	–	–	–

which are concerned with attitudes and social behaviour (e.g. apologising, congratulating), and finally, expositives, utterances which are expository (e.g. "I reply", "I concede", etc.). Function 6 is described as "regulation of self", whereas Function 7 refers to regulation of others both in terms of behaviour regulation (e.g. use of imperatives) and of affective states (e.g. joking or jibing). Function 8 (Expression of affect) includes expressive noises such as laughing or snorting, whilst Function 9 involves other characteristics of the emitter such as marking of emotional states, personality and social identity. Role relationships are marked by Function 10. Functions 11 (reference), 12 (instruction) and 13 (inquiry) tend to be more concerned with the communication of information function of speech. Function 11 deals with the communication of propositional knowledge which is empirically verifiable, "the function most commonly offered at the head of the list, and the one that has probably been accorded most attention" (Robinson, p.74). Function 12 (instruction) can refer to both verbal and non-verbal skills, and Function 12 (inquiry), as the name suggests, is concerned with questions and questioning. Function 14 deals with the metalanguage functions. In the present analysis a further function is included, function 15 (opinion statement). Whilst it is possible that opinion statements should be classified as performative utterances (function 5) ("It is true and not false ... that I am thinking something", Austin, 962, p.46) there are difficulties associated with this course of action (See Austin for details). Furthermore, raters found it easier to identify an opinion statement than many of the more esoteric examples of Austin's performatives. Thus, for practical reasons, it was decided to include the additional function (15).

6.4 Relationship between Halliday's Child uses of Language and Robinson's Taxonomy.

Whilst making use of Robinson's taxonomy, the present analysis also wished to make use of function groupings and test predictions based on Halliday's system, thus, it is necessary to elucidate the perceived relationships between Halliday's child uses of language and Robinson's taxonomy of language functions. Figure 6.3 shows the author's suggested relationships between the two systems.

From Figure 6.3 it can be seen that, according to Halliday, Robinson's function 1 (avoidance of worse activity) appears not to be part of the younger child's options. Function 2 (conformity to norms, rules), similarly has no direct equivalent, though it can be argued that implicit knowledge of such rules is evident even in exchanges between very young children and their mothers, and is certainly present in "turn-taking" in conversations (e.g. Weiner & Goodenough, 1977; Duncan, 1972; Schegloff & Sacks, 1973). The question as to how well conversational participants in the present study conform to such rules requires, amongst other things, an investigation into pausing behaviour in conversations and into interruptions and "duets".

6.5 The Present Study

6.5.1 Scope of the Present Analysis and Predictions

1) Halliday (1973) relates his own work on language uses and functions to Bernstein's theory of restricted and elaborated codes. Specifically he states that "the child who, in Bernstein's terms, has only a 'restricted code' suffers some limitation in respect of the set of linguistic models ... because some of the functions of language have been developed one-sidedly." The restriction "is a restriction on the range of uses of language." (p.18). It is this prediction that is first

Figure 6.3

Relationships between Halliday's Child uses of Language and Robinson's Taxonomy

Halliday		Robinson
Instrumental	comes to be subsumed under	
Regulatory	≡	Fn.7 Regulation of others
Interactional	≡	Fn.4 Encounter regulation + Fn.10 Role relationship marking
Personal	≡	Fn. 8 Expression of affect + Fn. 9 Marking of emitter + Fn. 5 Performatives + Fn. 6 Regulation of self + Fn 15 Opinion Statements
Heurstic	≡	Fn. 13 Inquiry
Imaginative	≡ ?	Fn. 3 Aesthetics (in part)
Informative	≡	Fn. 11 Reference + Fn. 12 Instruction

put to the test in the present analysis. If working class children tend to use the restricted code to a greater extent than middle class children, then, perhaps, this difference will be mirrored in differences in the range of uses of language, with working class restricted code users displaying a less wide range than their middle class peers.

2) Halliday (1973) further, claims that "in particular, he (the restricted code user) may not make unrestricted use of his linguistic resources in the two functions which are the most crucial to his success in school: the personal function, and the heuristic function." (p.18). Thus, if we take the working class subjects as the most likely restricted code users in our sample (as is taken to be the case by a large number of people e.g. Bernstein, 1962b; Lawton, 1964) it is possible to predict that participants in working class conversations will make less use of the personal function (Robinson's functions 5 + 6 + 8 + 9 + 15) and of the heuristic function (Robinson's function 13) than their middle class counterparts.

3) A third area of investigation suggested by Halliday (1973) concerns the informative function of language (Robinson's functions 11 + 12). Halliday claims that the teacher places inordinate emphasis on this function in stressing the importance of the communication of information. Thus, the present analysis will look at the effect of the variables of social class, topic of conversation, and affiliation of participants, together with first order interactions on the frequency of use of this language function, in an attempt to shed a little more light onto the problem of educational failure.

4) An earlier investigation by Henderson (1970), referred to above, found social class differences in the reasons given by mothers of 7 year old children for talking to another adult. Henderson predicted that middle class mothers would talk more frequently for what she called "cognitive" and "interpersonal/affective" reasons than the working class mothers, whilst the working class mothers would talk more frequently for "social" reasons. These predictions were, again, based on Bernstein's theory of class differences and restricted and elaborated codes. Overall it was found that middle class mothers claimed to talk to other adults more than did the working class mothers, but Henderson's predictions concerning language were given support by the results of her survey only with respect to the more frequent use of language for cognitive reasons by middle class mothers. No significant differences in frequency of use of language in the social area were found, but it was working class mothers who appeared to make greater use of language for Interpersonal/affective reasons. The present analysis will also investigate possible differences in cognitive, social, and interpersonal/affective areas of language use. Bernstein and Henderson would, presumably, predict that middle class children will also make more frequent use of language for cognitive reasons that their working class peers. (This is the prediction of Pride (1971). If this is found to be the case, then we have some minimal support for the widely expressed view that "social relationships and their effect on language account for some of the differences in social class educational attainment." (Lee, 1973). "Cognitive reasons" in the present analysis are taken to include Robinson's functions 11 (Reference) + 12 (Instruction) + 13 (Heuristic or Inquiry).

5) Robinson (1972) reasons that "societies in which statuses are achieved make fewer precise and unambiguous discriminations and have available other options for signalling variations within a relationship in which perhaps only one basic form of address is used, whereas societies where statuses are ascribed are more likely to have a carefully graded and fine set of discriminating address forms co-occurring with other linguistic features" (p.129). While in 1973 Bernstein differentiates two different types of family ("personal" and "positional") and causally connects "the nature of these role options with the nature of the linguistic options", at this time he makes no link between either type of family and any social class grouping. However, two years previously, in 1971 (Bernstein, 1971, reprinted in Bernstein, 1977) he was more forthcoming, stating that "the literature strongly suggests that the traditional working class family is of the positional type", (p.61). Furthermore, he claims that "here we could expect the development of restricted codes (object), the hard core of the language/educability problem", (p.160). It is in positional families that there is claimed to be clear separation of roles, and it is here that members are ascribed status. Status achievement is more a characteristic of personal families (Bernstein, 1971, reported in Bernstein, 1977). Returning now to Robinson (1972) it is possible that we might learn something of interest by analysing the forms of address found in the transcripts of our conversations. Whilst we cannot make any direct measure of the "role options" of our subjects, we can inspect the use of proper names as opposed to an undifferentiated "you". The Robinson-Bernstein prediction could be that working class groups will make a greater use of the more discriminating forms of address (e.g. "what do you think Davie?" rather than the basic form "what do you think?"). It is also possible to argue that the variable of affiliation may more parsimoniously "explain" any variation which may occur in such usage.

6.5.2 Procedure and Pilot Studies

Informal 'pilot studies' were carried out in order to discover the clearest and easiest to use flow diagram as an aid to what Robinson (1972) calls a "technology of diagnosis". The final format is reproduced in Figure 6.4. This flow chart was used by raters along with Robinson's taxonomy of language functions (Figure 6.3) with the addition of category 15 (Declaration of opinion). It was suggested to all raters that some utterances would fulfil more than one function at the same time.

6.5.3 Inter-rater Reliability for Scoring Procedure

Whilst all transcripts were finally scored by the author it was felt that some measure of reliability of the procedure was an appropriate and necessary prerequisite. One of the requirements that a final taxonomy of the functions of language should meet is that the categories should be clearly definable (Robinson, 1972). Thus, the experimenter (Rater 1) and seven other volunteers (all post-graduate students of psychology but none having any particular skill or experience relevant to the rating task) rated two short samples of conversational transcript (one a sample of a popular topic conversation and the other an unpopular topic sample). A measure of "concordance" between rater 1 and the other seven raters was then calculated (Smith and Connolly, 1972) where "concordance" was defined as the number of occurrences for which both raters agree divided by the total number of occurrences (estimated by taking the mean number of functions assigned for both raters). Agreement as to the absence of a behavioural category did not enter into the concordance estimate. An example of the calculation of such an estimate is shown in Table 6.2.

FIGURE 6.4

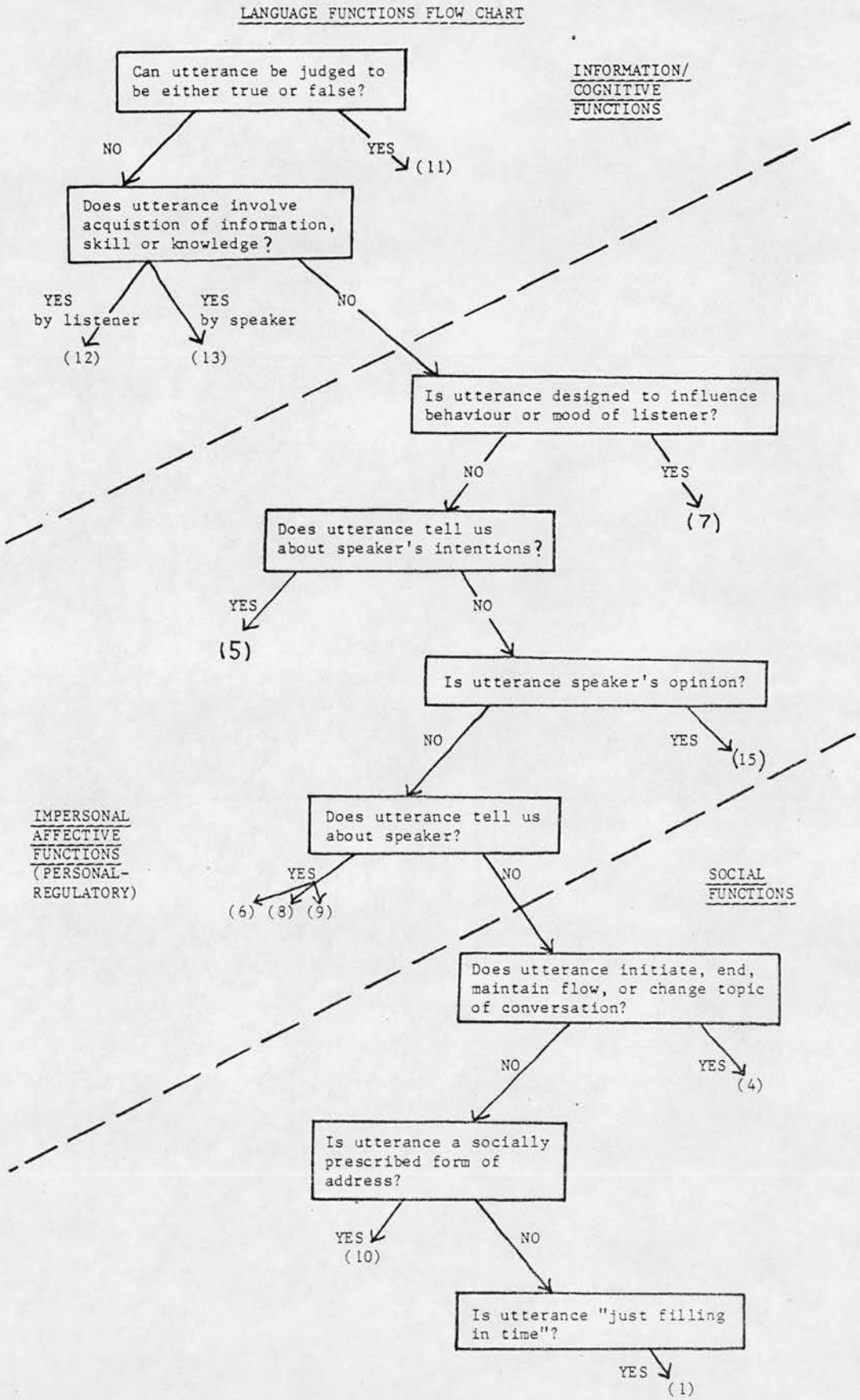

LANGUAGE FUNCTIONS FLOW CHART
Can utterance be judged to be either true or false?
INFORMATION/ COGNITIVE FUNCTIONS
NO
YES
(11)
Does utterance involve acquistion of information, skill or knowledge?
YES by listener
(12)
YES by speaker
(13)
NO
Is utterance designed to influence behaviour or mood of listener?
NO
YES
(7)
Does utterance tell us about speaker's intentions?
YES
(5)
NO
Is utterance speaker's opinion?
NO
YES
(15)
IMPERSONAL AFFECTIVE FUNCTIONS (PERSONAL-REGULATORY)
Does utterance tell us about speaker?
YES
(6) (8) (9)
NO
SOCIAL FUNCTIONS
Does utterance initiate, end, maintain flow, or change topic of conversation?
NO
YES
(4)
Is utterance a socially prescribed form of address?
YES
(10)
NO
Is utterance "just filling in time"?
YES
(1)

Table 6.2

Example of the Calculation of a Concordance Measure

Utterance	Functions assigned by Rater 1	Functions assigned by Rater 2	Agreement
1	1, 4, 5, 9	4, 5, 7, 9	3
2	12	4, 12	1
3	11, 12	4, 11, 12	2
4	4, 7, 9	4, 8, 9, 15	2
Totals	10 Functions	13 Functions	8

Agreement = 8

Mean Total Number of Functions Assigned = $\frac{1}{2}(10 + 13) = 11.5$

$\therefore$ Concordance = $\frac{8}{11.5} = 0.70$

The number of ratings over which both raters agrees is 8 and the mean total number of functions assigned is 11.5. Thus, the concordance rating is 0.70. Concordance ratings for all combinations of the 8 raters were calculated for both samples, and are shown in Table 6.3.

Table 6.3

Concordance Ratings

SAMPLE I

Sample II	R1	R2	R3	R4	R5	R6	R7	R8	
R1	*	.63	.88	.68	.69	.58	.67	.67	
R2	.75	*	.71	.93	.74	.50	.50	.53	Mean
R3	.75	.60	*	.72	.77	.57	.65	.65	.69
R4	.63	.59	.64	*	.63	.51	.55	.47	
R5	.61	.60	.42	.80	*	.60	.67	.67	
R6	.52	.55	.48	.40	.38	*	.60	.50	
R7	.84	.81	.71	.56	.56	.55	*	.62	
R8	.71	.67	.65	.59	.50	.80	.71	*	

Mean .69

The mean concordance between rater 1 and the other raters was calculated at 0.69 for both samples of conversation. Some lower estimates were calculated particulary in Sample II (for example 0.38 between Rater 5 and Rater 6). These were largely due to differences in the numbers of functions/uses of language assigned to individual utterances by the two raters. Rater 5 was a more "conservative" rater than was Rater 6, assigning on average only one functional category to each utterance whereas Rater 6 assigned 2.5 categories to each utterance. Thus, whilst Rater 5's ratings corresponded almost exactly to those of Rater 6, the mean total number of occurrences was always such so as to keep the concordance rating low.

e.g.

Utterance Number	Rater 5's Categories	Rater 6's Categories	Agreement
1	13	4, 13	1
2	11	11, 12, 4	1
3	11	11, 12, 4	1
4	13	13, 4	1

For this part of the transcript sample the total number of occurrences for Rater 5 was 4, and for Rater 6 was 10, giving a mean total of $\frac{1}{2}(4 + 10) = 7.5$ and a concordance rating of $4/7.5 = 0.53$ in spite of the obvious agreement between the two raters. As a multifunctional analysis of a verbal event will be the rule rather than the exception (Robinson, 1972) and as the mean number of functions assigned per rater was 2.93, Rater 5 was clearly the exception rather than the rule.

All raters fell into the Registrar General's social classes I or II and were thus, in terms of this variable at least, a relatively homogeneous group. Therefore, total misunderstandings as to the function of various utterances such as that observed by Burns (1957, reported in Pride, 1971) in his Edinburgh study of management and staff, whilst not

outwith the bounds of possibility, were not likely occurrences. We cannot, however, discount the possibility of an alternative interpretation of the functions of the language in our samples being given by raters from social classes other than I and II. In any event we must agree with Robinson that the diagnosis of function is no simple and certain matter.

6.5.4 Analysis and Treatment of Results

Once again, the results of the functions of language analysis were subjected to a multiple regression analysis. This was the treatment of choice because the same difficulties existed as before with regard to the form of data (See Chapter 3) and also it was desirable to use the same method as before in order better to effect comparisons between "form" and "function" analyses. The regression analysis was carried out on all categories of language function, as well as on those combinations about which predictions have been made. Initial observations of the mean scores (see Table 6.4) suggested that there were no significant differences in language use between the first and second recorded conversations, and that the two groups of data might be treated together for the purpose of this further analysis. In order to test this prediction, Cochran's approximation of the statistic due to Behrens and Fisher was applied to the data (Snedecor & Cochrane, 1967). This test was deemed appropriate bearing in mind the considerable differences in standard deviations observed in some cases (Table 6.4). In no case was any difference between first and second recorded conversations found to be significant at the .05 level. Data from first and second recorded conversations were, therefore, in this case analysed together.(1)

(1) It should be noted here that, as many groups contributed both popular and unpopular conversations to the data, caution must be exercised in interpreting results which include the popularity topic variable. A repeated measures analysis, which would have avoided this particular problem, was not wholly suitable either in that not all groups provided both contributions.

Table 6.4

Each Category of Language Functions as % Age of Total Functions Ascribed (1st and 2nd conversations separated)
Means and Standard Deviations

(1) = 1st recorded conversation
(2) = 2nd recorded conversation

Popular Topic

Sub-group	Categories											
	11	12	13	7	5	15	6	8	9	4	10	1
WCH												
(1) x	7.79	28.45	14.62	6.94	1.26	11.55	0	13.77	7.12	8.21	0.31	0.08
n=5 S.D.	3.48	7.85	8.05	3.87	0.99	5.31	0	8.04	2.98	4.78	0.69	0.11
(2) x	12.50	27.94	9.15	4.27	0.18	14.03	0	9.74	11.99	11.54	0	1.17
N=4 S.D.	6.49	7.23	7.60	3.52	0.22	9.07	0	11.56	2.44	6.61	0	1.22
WCL												
(1) x	17.61	29.19	9.02	5.87	0.30	5.58	0.22	13.21	10.92	8.06	0	0
n=4 S.D.	5.74	2.46	5.32	3.49	0.42	4.05	0.44	8.35	3.51	5.13	0	0
(2) x	8.90	26.65	10.29	7.41	0.12	5.66	0	13.47	12.46	15.45	0	0
n=4 S.D.	3.29	3.94	6.44	2.94	0.24	1.48	0	5.19	3.21	5.74	0	0
MCH												
(1) x	7.25	22.85	12.84	8.87	0.40	5.19	0.04	16.00	13.85	10.49	0.06	2.21
n=5 S.D.	8.02	5.50	4.70	4.38	0.56	2.68	0.09	6.13	5.08	3.89	0.12	3.05
(2) x	7.59	25.15	9.04	8.78	0.35	12.85	0	12.13	11.49	12.40	0	0.24
n=4 S.D.	6.31	3.85	10.02	3.96	0.71	6.02	0	6.41	3.77	5.03	0	0.33
MCL												
(1) x	14.94	25.60	3.77	5.76	0.16	7.46	0	11.55	14.49	14.21	0	2.07
n=4 S.D.	13.83	9.72	4.53	5.02	0.31	1.55	0	8.11	3.38	10.34	0	4.13
(2) x	9.40	21.15	7.93	6.72	0	15.32	0.11	7.27	11.88	18.16	0	2.07
n=5 S.D.	7.04	6.41	9.54	1.08	0	7.29	0.22	7.59	1.61	10.17	0	2.28

N.B. No occurrences of functions 2, 3 and 14 were noted.

Table 6.4 (Contd.)

UnPopular Topic

Sub-group		Categories 11	12	13	7	5	15	6	8	9	4	10	1
WCH													
(1)	x	3.84	18.16	9.65	4.83	0	14.49	0	14.48	15.82	16.30	0	2.44
n=4	S.D.	4.42	5.89	8.58	5.65	0	0.95	0	13.67	3.51	3.97	0	3.37
(2)	x	5.67	20.45	21.38	6.97	0	7.92	0	12.33	10.48	14.21	0	0.60
N=4	S.D.	8.69	3.64	3.59	4.19	0	1.66	0	6.69	4.36	2.96	0	1.20
WCL													
(1)	x	5.67	20.29	6.37	3.87	0	11.32	0	16.23	17.06	17.35	0	1.85
n=4	S.D.	5.37	6.98	9.94	6.57	0	4.26	0	13.38	10.61	5.29	0	3.71
(2)	x	10.23	22.65	3.59	7.22	0.11	9.68	0	13.14	16.22	17.16	0	0
n=5	S.D.	4.37	2.49	2.55	3.70	0.23	6.00	0	12.07	3.16	10.13	0	0
MCH													
(1)	x	6.80	19.98	8.25	14.08	0	12.75	0	8.11	14.19	15.16	0	0.86
n=5	S.D.	4.56	1.18	4.19	6.14	0	3.89	0	6.17	2.77	6.13	0	1.13
(2)	x	4.58	18.79	7.04	13.71	0	11.52	0	14.90	14.07	14.72	0.19	0.50
n=5	S.D.	1.02	3.62	3.01	6.94	0	5.11	0	5.85	3.87	8.57	0.42	0.75
MCL													
(1)	x	6.76	23.18	9.54	4.06	0.16	15.07	0	11.80	11.8	15.96	0	2.30
n=4	S.D.	7.34	5.04	5.94	4.17	0.32	13.34	0	15.81	1.91	5.01	0	1.96
(2)	x	8.13	20.38	3.10	5.39	0	18.17	0	8.29	20.61	13.53	0	2.40
n=5	S.D.	7.31	3.95	3.85	5.61	0	14.65	0	8.45	10.68	9.18	0	3.30

N Total = 71

Levels of Significance Associated with Percentages of Variance Explained

Levels of significance derived from $_cR$ values for 65 d.f. provided by the N.S. analyses are as follows:

8.90% explained is significant at the 0.05 level.
14.21% explained is significant at the 0.01 level.

6.6 Results

6.6.1 Information Function (Categories 11 + 12)

Table 6.5(a) shows the means and standard deviations for all groups of functions 11, 12 and 13. For functions 11 (Reference) and 12 (Instruction) the general trend appears to be towards a higher rate of usage by low affiliation conversation groups. Only for function 12, in the working class popular conversations is this trend not in evidence. (Here there is a mean percentage usage of 28.22% by WCH groups compared with a mean of 27.92% for the WCL groups). Again, for functions 11 and 12, there is a separation of popular and unpopular topic means, with a higher rate of use of these two functions in popular conversations. Although functions 11, 12 and 13 (Heuristic) might have been thought of as a "cognitive functions" group (See prediction 4, page 161) function 13 appears to be different from functions 11 and 12 in at least two ways. We shall return to a discussion of function 13 and these differences shortly. Table 6.5 (b) shows the analysis of data constructed from the Newton-Spurrell coefficients. Here we see that only 12.02% of the variance attributable to the dependent variables and interactions may be explained by them. The contribution suggested by means differences attributable to topic is not supported directly, as Variable 19 (the Affiliation-Class interaction) is seen as the most important contributor to the variance, but is supported

Table 6.5(a)

Percentages of Functions 11, 12 and 13 in relation to the Total Functions Ascribed: Means and Standard Deviations

Popular Topic

		Category 11	12	13
WCH	x	9.88	28.22	12.19
n=9	S.D.	5.29	7.11	7.90
WCL	x	13.26	27.92	9.65
n=8	S.D.	6.36	3.33	5.51
MCH	x	7.40	23.87	11.15
n=9	S.D.	6.87	4.71	7.26
MCL	x	14.48	24.70	5.80
n=9	S.D.	12.08	8.46	7.27

Unpopular Topic

WCH	x	4.75	19.31	15.51
n=8	S.D.	6.45	4.69	8.74
WCL	x	7.95	21.47	4.98
n=9	S.D.	5.15	5.01	6.88
MCH	x	5.69	19.38	7.64
n=10	S.D.	3.33	2.62	3.50
MCL	x	8.46	22.12	5.96
n=9	S.D.	6.72	4.44	5.67

Table 6.5(b)

Regressive analysis results for Informative Function

(12.02% explained)

(Categories 11 + 12)

%	Elements	Variable					
100	1052.321556	14	15	16	17	18	19
97.30	1023.959299	-	15	16	17	18	19
96.38	1014.18398	15	15	-	17	18	19
95.56	1005.61583	14	15	16	-	18	19
92.91	977.670398	-	15	-	17	18	19
92.67	975.16927	14	15	-	-	18	19
91.20	959.739182	-	15	16	-	18	19
87.58	921.6158	-	15	-	-	18	19
83.58	879.533626	14	-	16	17	18	19
83.35	877.084754	-	-	16	17	18	19
82.24	865.38192	14	-	-	17	18	19
81.87	861.578317	14	15	16	17	-	19
81.75	860.26823	-	-	-	17	18	19
79.30	834.44159	-	15	16	17	-	19
79.26	834.02898	14	15	-	17	-	19
76.03	800.07227	-	15	-	17	-	19
74.66	785.6791	14	-	16	-	18	19
74.34	782.27165	14	-	16	17	-	19
74.12	779.95529	14	-	-	-	18	19
73.70	775.53073	-	-	16	17	-	19
73.01	768.34875	-	-	-	-	18	19
73.01	768.31878	14	-	-	17	-	19
71.97	757.38019	-	-	-	17	-	19
68.22	717.84436	14	15	16	-	-	19
66.90	703.97885	14	15	-	-	-	19
	TOTALS	14	14	12	16	15	25

14 Popularity, 15 Affiliation, 16 Class, 17 Popularity-Affiliation, 18 Popularity-Class 19 Affiliation-Class

indirectly in that either variable 18 (the Popularity-Class interaction) or variable 17 (the Popularity-Affiliation interaction) is also needed to be present in order to make a substantial contribution to the attributable variance. (Variables 19 + 18 together contribute 73.01% and variables 19 + 17 contribute 71.97%). Variable 16 (Class) appears to make the least contribution. Table 6.5(c) shows the regression analysis for the two functions 11 (Reference) and 12 (Instruction) separately. Taking function 11 on its own it can be seen that variable 19 (the A-C interaction) again is the single most influential variable, but this time with variables 15 (Affiliation) and 16 (Class) also making some contribution to the attributable variance. Discontinuities in the table support the part played by variable 16 (Class) in that the percentage of attributable variance drops from 85.71% to 76.49% when variable 16 is dropped. Discontinuities also suggest that variable 17 (the Popularity-Affiliation interaction) plays some small part in explaining the attributable variance. In the case of function 11 (Reference) on its own 20.87% of variance is explained. It may be observed that variable 18 (the Popularity-Class interaction) is the single most important variable, followed by variable 19 (the Affiliation-Class interaction) and variable 16 (Class). (Variables 18 + 19 account for 85.88% of attributable variance, whilst variables 18 + 16 account for 71.65%). The relative importance of variables 16 and 19 is also suggested by the two discontinuities shown on the table. Variables 14 (Popularity) 15 (Affiliation) and 17 (the Popularity-Affiliation interaction have negligible effect.

6.6.2 Heuristic Function (Category 13)

The means and standard deviations for all groups are shown on Table 6.5(a). It has already been noted that this function appears to differ slightly in usage from functions 11 and 12. Table 6.5(a) suggests that there is a similar pattern of usage for both popular and unpopular conversations (unlike functions

Table 6.5(c)

Regression analysis results

Function 11 (Reference) 20.87% explained

%	Elements	Variables					
100	743.69353	14	15	16	17	18	19
99.56	740.44449	14	15	16	17	-	19
99.10	737.00215	-	15	16	17	18	19
98.65	733.67331	-	15	16	17	-	19
88.68	659.49615	14	15	16	-	18	19
88.47	657.91843	14	15	16	-	-	19
86.02	639.75755	-	15	16	-	18	19
85.71	637.44859	-	15	16	-	-	19
76.49	568.87137	14	15	-	17	18	19
76.27	567.2409	14	-	16	17	18	19
76.03	565.44446	-	-	16	17	18	19
75.51	561.53974	14	15	-	17	-	19
74.27	552.32305	-	15	-	17	18	19
73.23	544.63036	-	15	-	17	-	19
69.99	520.49213	14	-	16	17	-	19
69.42	516.26105	-	-	16	17	-	19
68.12	506.62944	14	15	-	-	18	19
68.12	506.62487	14	15	-	-	-	19
		10	14	12	12	9	18

14 Popularity
15 Affiliation
16 Class
17 Popularity-Affiliation
18 Popularity-Class
19 Affiliation-Class

Regression analysis results

Function 12 (Instruction) 13.58% explained)

%	Elements	Variables					
100	398.9763	14	15	16	17	18	19
99.995	398.95716	14	-	16	17	18	19
98.63	393.49258	14	15	16	-	18	19
98.53	393.10277	14	-	16	-	18	19
98.12	391.47506	-	15	16	17	18	19
97.88	390.51698	-	-	16	17	18	19
97.26	388.06173	-	15	16	-	18	19
96.85	386.42069	-	-	16	-	18	19
87.55	349.32365	14	15	-	17	18	19
87.19	347.85159	14	-	-	17	18	19
86.88	346.6236	14	15	-	-	18	19
86.69	345.8767	14	-	-	-	18	19
86.58	345.42427	-	15	-	17	18	19
86.48	345.04704	-	-	-	17	18	19
86.15	343.72956	-	15	-	-	18	19
85.58	341.45616	-	-	-	-	18	19
74.13	295.77045	14	15	16	17	18	-
73.45	293.0552	14	15	16	-	18	-
73.37	292.73022	-	15	16	-	18	-
73.23	292.15379	14	15	-	-	18	-
73.09	291.60463	14	-	16	17	18	-
72.55	289.47468	-	-	16	17	18	-
72.25	288.26913	-	15	16	17	18	-
72.00	287.27446	14	-	16	-	18	-
71.65	285.8838	-	-	16	-	18	-
		13	13	16	12	25	16

11 and 12 i.e. a higher rate of usage by the low affiliation groups on the whole. Unfortunately the regression analysis indicated that only 6.11% of the variance is attributable to the independent variables. Further analysis was, therefore, not carried out.

6.6.3 Personal Function (Categories 5 + 15 + 6 + 8 + 9)

Table 6.6(a) shows the mean percentages and standard deviations of functions 5, 15, 6, 8, 9 and 7 individually, while Table 6.6(b) shows the results of the regression analysis for the group as a whole, excluding function 7 (Regulation) 22.42% of variance is explained. The analysis suggests that variables 14 (Popularity) and 18 (the Popularity-Class interaction) together make the most important contribution (79.95% of attributable variance). This assignment of importance is supported in that when either variable 14 or 18 is "absent", at least four other variables must be present in order for the proportion of attributable variance not to drop significantly.

6.6.4 Regulatory Function (Control)

Table 6.6(a) suggests that for category 7 (Regulation Function) there might be a Class-Affiliation interaction, in that working class usage of the category appears relatively constant, whereas middle class use is increased in high affiliation groups in both popular and unpopular conversations, though to a much greater extent in unpopular conversations. The results of the Newton-Spurrell coefficients analysis (Table 6.6(c)) support the popularity of topic difference, in that, in this analysis variable 14 (Popularity) is clearly the most important variable (alone accounting for 71.27% of attributable variance). Some pattern relating to the presence/absence of the three interactions is evident with variable 18 (the popularity-class interaction) being marginally the most important of the three, though little difference exists between the contributions made by the three interactions.

Table 6.6(a)

Percentages of Functions 5, 15, 6, 8, 9 and 7 in relation to the Total Functions Ascribed: Means and Standard Deviations

Popular Conversations

		Categories 5	15	6	8	9	7
WCH	x	0.78	12.65	0	11.98	9.29	5.75
n=9	S.D.	0.91	6.83	0	9.33	3.64	3.76
WCL	x	0.21	5.62	0.11	13.34	11.69	6.64
n=8	S.D.	0.33	2.82	0.31	6.44	3.22	3.10
MCH	x	0.38	8.59	0.02	14.28	12.80	8.83
n=9	S.D.	0.59	5.78	0.07	6.19	4.45	3.93
MCL	x	0.07	10.91	0.05	8.49	14.07	5.54
n=9	S.D.	0.21	6.19	0.15	7.64	3.75	3.80

Unpopular Topic

WCH	x	0	11.21	0	13.41	13.15	5.90
n=8	S.D.	0	3.73	0	10.08	4.64	4.75
WCL	x	0.06	10.50	0	14.68	16.64	5.55
n=9	S.D.	0.16	4.89	0	11.91	7.26	5.25
MCH	x	0	12.13	0	11.50	14.17	13.90
n=10	S.D.	0	4.33	0	6.70	3.21	6.18
MCL	x	0.07	16.79	0	9.85	16.42	4.79
n=9	S.D.	0.21	13.29	0	11.53	9.12	4.75

Table 6.6(b)

Regression analysis results for Personal Function (5 + 15 + 6 + 8 + 9)

(22.42% explained)

%	Elements	Variable					
100	2813.9787	14	15	16	17	18	19
99.88	2810.4735	14	15	16	-	18	19
97.30	2738.0658	14	15	-	17	18	19
97.03	2730.4474	14	15	-	-	18	19
87.94	2474.6516	14	-	16	17	18	19
87.81	2471.0944	14	-	16	-	18	19
86.93	2446.2277	14	-	-	17	18	19
86.89	2444.9497	14	-	-	-	18	19
79.95	2249.6463	14	-	-	-	18	-
77.79	2189.0344	14	15	16	17	18	-
77.79	2189.0103	14	15	16	-	18	-
75.91	2136.0737	14	15	16	17	-	19
75.04	2111.5555	14	15	-	17	18	-
71.99	2025.6712	14	15	-	17	18	-
71.65	2016.077	14	15	16	-	-	19
70.76	1991.214	14	-	16	17	18	-
69.47	1955.218	-	15	16	17	18	19
68.95	1940.3121	-	15	16	-	18	19
	Totals	16	12	11	10	16	12

14 Popularity
15 Affiliation
16 Class
17 Popularity-Affiliation
18 Popularity-Class
19 Affiliation-Class

Table 6.6(c)

Regression analysis results for Regulatory (Control) Function

(Function 7) (17.5% explained)

%	Elements	Variable						
100	537.98172	14	15	16	17	18	19	
98.88	531.9569	14	15	-	17	18	19	
97.76	525.92406	14	-	16	17	18	19	
97.37	523.85713	14	15	16	-	18	19	
97.13	522.5678	14	-	-	17	18	19	
96.56	519.49706	14	15	-	-	18	19	
93.91	505.19256	14	-	16	-	18	19	
93.64	503.77869	14	-	-	-	18	19	
89.03	478.95271	14	15	16	17	18	-	
88.21	474.56067	14	-	16	17	18	-	
87.88	472.79224	14	15	-	17	18	-	
87.38	470.07533	14	-	-	17	18	-	
86.53	465.52678	14	15	16	17	-	19	
86.48	465.22121	14	-	16	17	-	19	
85.87	461.99165	14	15	-	17	-	19	
85.87	461.94129	14	-	-	17	-	19	
85.60	460.49556	14	15	16	-	18	-	
84.81	456.24579	14	15	-	-	18	-	
83.95	451.60888	14	-	16	-	18	-	
83.56	449.51069	14	-	-	-	18	-	
80.26	431.75951	14	15	16	17	-	-	
80.25	431.75144	14	-	16	17	-	-	
79.51	427.75992	14	15	-	17	-	-	
79.47	427.55096	14	-	-	17	-	-	
77.66	417.79152	14	15	16	-	-	19	
77.48	416.80839	15	15	-	-	-	19	
77.37	416.22583	14	-	16	-	-	19	
77.26	415.64001	14	-	-	-	-	19	
71.53	384.84402	14	15	16	-	-	-	
71.47	384.46979	14	-	16	-	-	-	
71.30	383.59322	14	15	-	-	-	-	
71.27	383.43286	14	-	-	-	-	-	
	Totals	32	16	16	16	16	16	16

14 Popularity
15 Affiliation
16 Class
17 Popularity-Affiliation
18 Popularity-Class
19 Affiliation-Class

6.6.5 Social/Role Functions (Categories 4 + 10 + 1)

Table 6.7(a) shows the means and standard deviations for categories 4 (Encounter Regulation), 10 (Role Marker), and 1 (Avoidance Function) individually, and Tables 6.7(b) and 6.7(c) give the analysis constructed from the Newton-Spurrell coefficients for each category omitting category 1 (see below). Table 6.7(d) shows the results of the regression analysis for the social/roles function group as a whole. Looking first at language function 4, the interactional function (Encounter Regulation), it can be seen that 16.5% of variance may be explained by the independent variables, and that, once again, variable 19 (the Affiliation-Class interaction) is crucial to an explanation of this attributable variance (variable 19 accounts for 79.40% on its own). There is, perhaps, a hint of importance associated with variable 16 (Class) and/or variable 15 (Affiliation) also, there being a "discontinuity" occurring in the table when one of these two variables is not present. Table 6.7(a) indicates a very infrequent usage of category 10 (the role marker function) in that in only two sub-groups was this language function noted at all (WCH popular topic and MCH unpopular topic conversations). Table 6.7(c) shows the regression analysis for this language function. Yet again, variable 19 (the Affiliation-Class interaction) appears as the single most important variable. One of the two variables 16 (Class) and 17 (the Popularity-Affiliation interaction) also appears to be necessary though it does not appear to matter which of the two is present.

Moving on now to category 1 (the Avoidance function) the mean scores for the sub-groups shown in Table 6.7(a) indicate that an Affiliation-Class interaction may be important, in that WCH affiliation groups make more frequent use of this language function than WCL affiliation groups, whereas MCH affiliation groups consistently make less use of this same function than do their low affiliation counterparts.

Table 6.7(a)

Percentages of Functions 4, 10 and 1 in relation to the Total Functions Ascribed: Means and Standard Deviations

Popular Conversations

Sub-Group		Category 4	10	1
WCH	x	9.69	0.17	0.56
n=9	S.D.	5.56	0.52	0.95
WCL	x	11.75	0	0.03
n=8	S.D.	6.40	0	0.08
MCH	x	11.34	0	1.34
n=9	S.D.	4.25	0	2.40
MCL	x	14.25	0	1.84
n=9	S.D.	10.38	0	2.97

Unpopular Conversations

WCH	x	15.26	0	1.52
n=8	S.D.	3.43	0	2.54
WCL	x	17.26	0	0
n=9	S.D.	7.48	0	0
MCH	x	14.94	0.09	0.59
n=10	S.D.	7.02	0.29	0.87
MCL	x	14.61	0	2.36
n=9	S.D.	7.29	0	2.63

Table 6.7(b)

Regression analysis results for
Interactional (Encounter Regulation) Function
(Function 4) 16.15% explained

%	Elements	Variable					
100	869.955626	14	15	16	17	18	19
99.99	869.89628	-	15	16	17	18	19
99.96	869.56472	14	15	16	17	-	19
99.35	864.32737	14	15	16	-	18	19
99.35	864.27951	-	15	16	-	18	19
99.10	862.13988	14	15	16	-	-	19
99.09	862.04619	-	15	16	-	-	19
97.65	849.55321	-	15	16	17	-	19
96.23	837.11517	14	-	16	17	18	19
95.98	835.00145	14	-	16	17	-	19
95.77	833.11753	-	-	16	17	18	19
95.45	830.33155	-	-	16	17	-	19
94.73	824.1283	14	-	16	-	18	19
94.71	823.90845	14	-	16	-	-	19
94.47	821.88382	-	-	16	-	18	19
94.42	821.39033	-	-	16	-	-	19
93.84	816.3719	14	15	-	17	18	19
93.71	815.25602	-	15	-	17	18	19
93.70	815.10514	14	15	-	17	-	19
93.56	813.95034	-	15	-	17	-	19
92.72	806.62222	14	15	-	-	18	19
92.69	806.38236	-	15	-	-	18	19
92.11	801.30791	14	15	-	-	-	19
92.09	801.16606	-	15	-	-	-	19
87.81	763.91577	14	-	-	17	18	19
87.58	761.86844	14	-	-	17	-	19
86.36	751.2514	-	-	-	17	18	19
85.98	747.9676	-	-	-	17	-	19
85.07	740.04281	14	-	-	-	18	19
85.07	740.03964	14	-	-	-	-	-
84.04	731.11186	-	-	-	-	18	19
79.40	690.7629	-	-	-	-	-	19
	Totals	16	16	16	16	16	32

14 Popularity
15 Affiliation
16 Class
17 Popularity-Affiliation
18 Popularity-Class
19 Affiliation-Class

Table 6.7(c)

Regression analysis results for
Role Marker Function (Function 10)
16.94% explained

%	Elements	Variables					
100	897.70988	14	15	16	17	18	19
96.28	864.34006	14	-	16	17	18	19
88.46	794.07793	14	15	16	17	-	19
87.90	789.11221	14	15	-	17	18	19
87.82	788.35371	14	-	16	17	-	19
86.23	744.06356	14	-	-	17	18	19
83.74	751.78614	-	15	16	17	18	19
83.12	746.21363	-	-	16	17	18	19
80.63	723.81025	14	15	16	-	18	19
79.50	713.70122	14	-	16	-	18	19
77.86	698.98659	14	15	-	17	-	19
77.81	698.52168	14	-	-	17	-	19
76.32	685.0906	14	15	16	-	-	19
76.11	683.25883	14	-	16	-	-	19
72.43	650.22221	-	15	16	17	-	19
72.22	648.37063	-	-	16	17	-	19
70.11	629.41555	-	15	16	-	18	19
70.07	628.9906	-	-	16	-	18	19
68.17	611.98864	-	15	-	17	18	19
	Totals	12	10	14	13	11	19

14 Popularity
15 Affiliation
16 Class
17 Popularity-Affiliation
18 Popularity-Class
19 Affiliation-Class

Table 6.7(d)

Regression analysis results for
Avoidance Function (Function 1)
10.31% explained

%	Elements	Variables					
100	240.876867	14	15	16	17	18	19
98.67	237.66363	-	15	16	17	18	19
97.55	234.97304	14	15	-	17	18	19
97.15	234.00326	-	15	16	17	18	-
96.49	232.41155	14	15	16	17	18	-
95.77	230.6765	-	15	-	17	18	19
95.13	229.14977	14	15	16	17	-	19
94.01	226.457	14	15	-	17	18	-
93.84	226.03958	-	15	16	17	-	19
93.21	224.52335	14	15	16	17	-	-
93.12	224.30072	14	15	-	17	-	19
93.01	224.03899	-	15	-	17	18	-
92.42	222.61666	-	15	16	17	-	-
91.42	220.21846	-	15	-	17	-	19
91.12	219.47578	14	15	-	17	-	-
90.00	216.80025	-	15	-	17	-	-
	Totals	8	16	8	16	8	8

Table 6.7(e)

Regression analysis results for

Social/Roles Function (Functions 4 + 10 + 1)

10.86% explained

%	Elements	Variable					
100	381.87272	14	15	16	17	18	19
97.97	374.13431	14	-	16	17	18	19
89.16	340.4825	14	15	-	17	18	19
84.82	323.92252	14	-	-	17	18	19
74.15	283.15874	14	15	16	17	-	19
74.02	282.65418	14	-	16	17	-	19
68.76	262.58865	-	15	16	17	18	19
68.72	262.41446	-	-	16	17	18	19
68.59	261.92709	14	15	16	-	18	19
68.50	261.58787	14	-	16	-	18	19
	Totals	8	5	8	8	8	10

14 Popularity

15 Affiliation

16 Class

17 Popularity-Affiliation

18 Popularity-Class

19 Affiliation-Class

The results of the regression analysis displayed in Table 6.7(d) support the importance of Variable 15 (Affiliation) together with variable 17 (the Popularity-Affiliation interaction), though the affiliation-class interaction does not appear to play a significant part on this occasion. Variables 15 (Affiliation) + 17 (Popularity-Affiliation) together contribute 90% if attributable variance. The proportion contributed by each of these two variables is approximately equal. Other variables appear to contribute very little. In all, 10.31% of variance is explained by independent variables in this analysis. Table 6.7(e) gives the regression analysis for the Social/Roles function group as a whole. Here only 10.86% of total variance may be attributed to the independent variables. As might be predicted from the results of the analyses of individual functions which together constitute the Social/Roles function group, again variable 19 (the Affiliation-Class) plus any three other variables (excluding variable 15 (Affiliation)) appears to be necessary for any substantial contribution to attributable variance to be made.

6.6.6 Individual Language Functions of the Personal Group

(The reader may wish to refer back to Table 6.6(a), page 175).

Function 15 (Opinion Statements)

Mean percentages (Table 6.6(a)) suggest that the affiliation and class variables may play some part in an explanation of usages of language function 15, and this indication receives some support from Table 6.8 (The Multiple Regression Analysis Results). Variable 15 (Affiliation) appears as the single most important variable, accounting for 61.49% of attributable variance on its own, and together with variable 16 (Class) making up 73.91% of the 18.08% of total variance attributable to the independent variables.

Table 6.8

Regression analysis results for

Opinion Statement

(Function 15) 18.98% explained

%	Elements	Variable					
100	561.94089	14	15	16	17	18	19
99.64	559.92392	14	15	16	17	-	19
95.80	538.36549	14	15	16	17	18	-
94.54	531.27624	14	15	16	17	-	-
91.47	514.01531	14	15	16	-	18	19
88.78	498.89667	14	15	16	-	-	19
88.04	494.74076	14	15	16	-	18	-
83.53	469.37666	14	15	16	-	-	-
83.38	468.5375	-	15	16	17	18	19
82.98	466.28085	-	15	16	17	-	19
82.32	462.58723	14	15	-	17	18	19
82.22	462.03331	14	15	-	17	-	19
81.66	458.85653	-	15	16	17	18	-
80.69	453.44497	-	15	16	17	-	-
78.65	441.98292	-	15	16	-	18	19
78.19	439.35625	14	15	-	17	18	-
77.50	435.50728	14	15	-	17	-	-
77.12	433.35071	-	15	16	-	18	-
76.60	430.45115	-	15	16	-	-	19
76.01	427.14941	14	15	-	-	18	19
74.51	418.69607	14	15	-	-	-	19
73.91	415.32288	-	15	16	-	-	-
72.53	407.60026	14	15	-	-	18	-
69.63	391.26993	14	15	-	-	-	-
69.10	388.29948	-	15	-	17	18	19
68.96	287.51948	-	15	-	17	-	19
67.20	377.62527	-	15	-	17	18	-
66.67	374.65002	-	15	-	17	-	-
61.49	345.53745	-	15	-	-	-	-
	Totals	16	28	16	16	14	14

14 Popularity
15 Affiliaiton
16 Class
17 Popularity-Affiliation
18 Popularity-Class
19 Affiliation-Class

Function 5 (Performatives)

Table 6.6(a) indicates that, unsurprisingly, relatively little use is made by groups of this language function, but suggests that the topic of conversation variable is important in explaining the 17.47% of attributable variance. Table 6.9 showing the results of the multiple regression analysis, to some extent, confirms this effect, in that variables 14 (Popularity) and 19 (the Affiliation-Class interaction) are more important than the other variables in this analysis (variables 14 + 19 together account for 72.94% of variance). Of the two, variable 14 (Popularity) appears marginally more important in that it does not drop out from the table until the 21st line (c.f. 14th line for variable 19 (Affiliation-Class).

Functions 5 + 15 (Performatives + Opinion Statements)

In view of the possible uncertainty as to the status of category 15 as regards Austin's classification, the two functions 5 and 15 were added together and re-analysed. Table 6.10 shows the results of this analysis. As might be expected in view of the results of the analyses of the two component functions separately (which suggested the importance of the Popularity and Affiliation class interaction variables (Category 5) and the Affiliation plus class variables (Category 15)), the analysis of the two taken together again suggests a major contribution by variable 14 (Popularity) together with variable 18 (the Popularity-Class interaction) which does not "drop" from the analysis until the end, thus causing a "fall" in percentage of attributable variance from 88.11% to 71.21% (See the "discontinuity" in Table 6.10).

Table 6.9

Regression analysis results for
Performative Utterances (Function 5)
17.47% explained

%	Elements	Variables					
100	638.38395	14	15	16	17	18	19
99.88	637.64099	14	15	16	17	-	19
97.45	622.09437	14	15	-	17	18	19
97.25	620.79709	14	15	-	17	-	19
88.93	567.70384	14	-	16	17	18	19
88.58	565.47166	14	15	16	-	18	19
87.95	561.48441	14	-	-	17	18	19
86.38	551.46301	14	-	16	17	-	19
86.23	550.61227	14	15	16	-	-	19
85.40	545.18934	14	-	-	17	-	19
84.79	541.29078	14	15	-	-	18	19
81.75	521.8745	14	15	-	-	-	19
81.29	518.91066	14	-	16	-	18	19
80.01	510.76544	14	15	16	17	18	-
79.44	507.14295	14	15	16	17	-	-
79.33	506.40694	14	-	-	-	18	19
77.51	494.79997	14	15	-	17	18	-
77.10	492.16253	14	15	-	17	-	-
75.22	480.20683	14	-	16	-	-	19
72.94	465.61531	14	-	-	-	-	19
67.65	431.85076	-	15	16	17	18	19
67.56	431.30301	-	15	16	17	-	19
66.69	425.75961	-	15	-	17	18	19
	Totals	20	15	12	15	12	19

Table 6.10

Regression analysis results for
Functions 5 + 15
9.94% explained

%	Elements	Variables					
100	264.43040	14	15	16	17	18	19
99.64	263.47975	14	15	16	-	18	19
98.80	261.26798	14	15	-	17	18	19
98.30	259.92412	14	15	-	-	18	19
90.35	238.91356	14	-	16	17	18	19
90.35	238.91146	14	-	16	-	18	19
90.15	238.38028	14	15	16	17	18	-
90.08	238.20815	14	-	-	17	18	19
90.08	238.20243	14	-	-	-	18	19
89.48	236.61471	14	15	16	-	18	-
88.98	235.28237	14	15	-	17	18	-
88.11	232.99343	14	15	-	-	18	-
71.21	188.28794	14	15	16	17	-	19
69.07	182.63748	14	15	-	17	-	19
67.57	178.66895	14	15	16	17	-	-
	Totals	15	11	8	9	12	10

14 Popularity
15 Affiliation
16 Class
17 Popularity-Affiliation
18 Popularity-Class
19 Affiliation-Class

Function 6 (Regulation of Self)

Although this function was not frequently used by the boys in our samples, mean percentages (Table 6.6(a)) suggest some importance attaching to each of the variables, topic, affiliation and class. The results of the regression-analysis (Table 6.11) suggest that variable 16 (Class) plus variable 17 (the Popularity-Affiliation interaction) together account for 82.85% of the 20.88% of attributable variance. The class variable (16) accounts for 56.45% on its own. There appears to be little contribution from the remaining variables, though variable 18 (the Popularity-Class interaction) appears more "stable", and therefore possibly of greater importance than the others. (See Table 6.11).

Function 8 (Expression of Affect)

The mean percentages shown in Table 6.6(a) suggest no clear-cut variation in the frequency of use of this language function, although in three out of four cases greater use of this function appears to be made in the unpopular topic conversations. Table 6.12 showing the results of the Newton-Spurrell coefficients analysis, suggests that it is variable 17 (the Popularity-Affiliation interaction) which is the single most important variable, contributing 61.11% of the 21.66% of attributable variance on its own. Variables 18 (the Popularity-Class interaction) and 14 (Popularity) also make a significant contribution, in that one is or both are always present in the table of elements. The initial "loss" of variable 14 (Popularity) is signalled by a "discontinuity", whilst that of variable 18 (Popularity-Class) is accompanied by the "return" of variable 14 (Popularity).

Table 6.11

Regression analysis results for
Regulation of Self Function (Function 6)
20.88% explained

%	Elements	Variables					
100	831.90511	14	15	16	17	18	19
99.28	825.94714	-	15	16	17	18	19
97.50	811.10634	14	15	16	17	18	-
96.15	799.89728	-	15	16	17	18	-
94.53	786.39464	14	-	16	17	18	19
93.16	774.98404	14	-	16	17	18	-
91.98	765.18442	-	-	16	17	18	19
98.94	748.63846	-	-	16	17	18	-
86.46	719.27604	14	15	16	17	-	19
85.94	714.96798	14	15	16	17	-	-
85.69	712.87013	-	15	16	17	-	19
85.18	708.60834	14	-	16	17	-	19
84.88	706.09646	-	15	16	17	-	-
84.82	705.63173	14	-	16	17	-	-
83.52	694.80684	-	-	16	17	-	19
82.85	689.1953	-	-	16	17	-	-

14 Popularity
15 Affiliation
16 Class
17 Popularity-Affiliation
18 Popularity-Class
19 Affiliation-Class

Totals	8	8	16	16	8	8

Table 6.12

Regression analysis results for
Expression of Affect (Function 8)
21.66% explained

%	Elements	Variables					
100	632.73102	14	15	16	17	18	19
99.67	630.64915	14	15	16	17	18	-
99.01	626.451	14	-	16	17	18	19
98.41	622.70072	14	-	16	17	18	-
97.65	617.85654	14	15	-	17	18	19
97.31	615.73467	14	15	-	17	18	-
95.94	607.01119	14	-	-	17	18	19
95.23	602.54618	14	-	-	17	18	-
89.34	565.2726	-	15	16	17	18	19
89.34	565.26504	-	15	16	17	18	-
85.71	542.32264	-	15	-	17	18	19
85.20	539.05615	-	-	16	17	18	19
85.13	538.66529	-	-	16	17	18	-
79.22	501.25778	-	-	-	17	18	19
79.14	500.74063	-	-	-	17	18	-
77.28	488.96919	14	15	16	17	-	19
76.98	487.04759	14	15	-	17	-	19
76.79	485.85516	14	-	16	17	-	19
74.15	469.1783	14	15	16	17	-	-
73.89	467.53738	14	-	16	17	-	-
73.81	467.04107	14	-	-	17	-	19
70.55	446.37698	14	15	-	17	-	-
70.52	446.19314	14	-	-	17	-	-

Totals	16	11	12	23	15	12

Function 9 (Marking of emitter)

Once again the mean percentages of occurrences of function 9 in relation to all functions ascribed (Table 6.6(a)) suggest involvement of more than one variable. In all cases there is greater frequency of use among low affiliation groups than among high ones, as well as in three out of four cases (the unpopular topic low affiliation groups being the exception) there being more frequent middle class use of this function than working class use. Table 6.13 shows the mutiple regression analysis results, and indicates that it is variable 18 (the Popularity-Class interaction) plus either variable 19 (the Affiliation-Class interaction) or variable 14 (Popularity) that account for a substantial proportion of attributable variance. (Variables 18 + 19 account for 68.50% of the 24.93% attributable variance, and variables 18 + 14 for 67.34% respectively). The importance of these three variables is signalled both by the totals of times they are "present" in the table, and by "discontinuities" within the table. Furthermore, variables 14 + 18 + 19 together account for 99.09% of the attributable variance.

6.6.7 Summary of Results

Table 6.14 gives a summary of the regression analysis results, noting variables of both major and minor importance in explaining the variance for each language function category. It can be seen that the affiliation-class variable plays a more important part overall in the use of language than any other single variable, though in relation to the Personal function group the variable Popularity and its involvement in interactions is of greater importance.

Table 6.13

Regression analysis results for
Marking of Emitter
(Function 9) 24.93% explained

%	Elements	Variable					
100	943.26007	14	15	16	17	18	19
100.0	943.25889	14	-	16	17	18	19
99.88	942.10332	14	15	-	17	18	19
99.87	942.04474	14	-	-	17	18	19
99.18	935.49374	14	15	16	-	18	19
99.15	935.20316	14	-	16	-	18	19
99.11	934.85374	14	15	-	-	18	19
99.09	934.71218	14	-	-	-	18	19
71.73	676.63357	14	15	16	17	-	19
71.73	676.63236	14	15	-	17	-	19
71.54	674.80524	-	15	16	17	18	19
71.52	674.65685	-	15	16	-	18	19
71.52	674.63521	-	15	-	-	18	19
71.48	674.26686	-	15	-	17	18	19
68.95	650.34927	14	15	16	17	18	-
68.94	650.28129	-	-	16	17	18	19
68.89	649.84352	-	-	16	-	18	19
68.84	649.32035	14	15	-	17	18	-
68.67	647.74106	14	15	16	-	18	-
68.59	647.00715	14	15	-	-	18	-
68.54	646.52946	-	-	-	17	18	19
68.50	646.13418	-	-	-	-	18	19
67.88	640.32889	14	-	16	17	18	-
67.87	640.15903	14	-	-	17	18	-
67.82	639.67715	14	-	16	17	-	19
67.70	638.56408	14	-	-	17	-	19
67.34	635.18196	14	-	16	-	18	-
67.34	635.17404	14	-	-	-	18	-
	Totals	20	14	14	16	24	20

14 Popularity
15 Affiliation
16 Class
17 Popularity-Affiliation
18 Popularity-Class
19 Affiliation-Class

Table 6.14

Variables of major and minor importance in "explaining" variance for each language function category

Language Function category	Variables of Major importance	Variables of Minor importance
Informative Function (Cats. 11 + 12)	A - C	P - C or P - A
T/F Function (Cat. 11)	A - C	Affil. + Class
Instruction (Cat. 12)	P - C	A - C + Class
Heuristic Function (Cat. 13)	X	X
Personal Function (Cats. 5+15+6+8+9)	Pop + R - C	-
Regulatory Control Function (Cat. 7)	Pop	-
Social/Roles Function (Cats. 4+10+1)	A - C	-
Role Marker (Cat. 10)	A - C	Class or P - A
Interactional (Encounter Regulation) (Cat. 4)	A - C	Class and/or Affil
Avoidance Function (Cat. 1)	Affil + P - A	-
Cat. 5	Pop + A - C	-
Cat. 15	Affil	Class
Cats. 5 + 15	Pop	P - C
Cat. 6	Class + P - A	-
Cat. 8	P - A	P - C and/or Pop
Cat. 9	P - C	A - C or Pop

where X = insufficient amount of variance attributable to the independent variables. Analysis not pursued.

6.7 Discussion

6.7.1 Range of uses of language

Halliday (1973) theorised that the restricted code user (presumed to be predominantly working class, See Bernstein 1962b, Lawton 1964) would display some restriction on the range of uses of language. Wells (1976), in a paper which looked at successful language development, investigated the "pragmatic range" in the language of 3 year olds, and found that the range of pragmatic functions in speech addressed to the child correlated highly with certain variables in the language of the child. These variables included mean length of utterance (MLU) and the semantic and pragmatic ranges. Class of family background was also found to show significant correlations with a number of measures. However, Wells notes that, whilst the pragmatic range of speech by others is significantly related to characteristics of the children's speech, the correlation between pragmatic range and social class is not marked. (The correlation between class and proportion of Representational speech by others is higher). He sounds a note of caution with regard to his correlation involving class of family background, since, in the sample, the "two extremes" of class were over represented. So, from this one study at least, it appears that the link between social class and pragmatic range of child language is not a strong one.

The results of the present study are shown in Table 6.15. The total numbers of language function categories used by each group were counted and mean values calculated for each subgroup. Figure 6.5 shows these same mean scores in graphical form.

Table 6.15

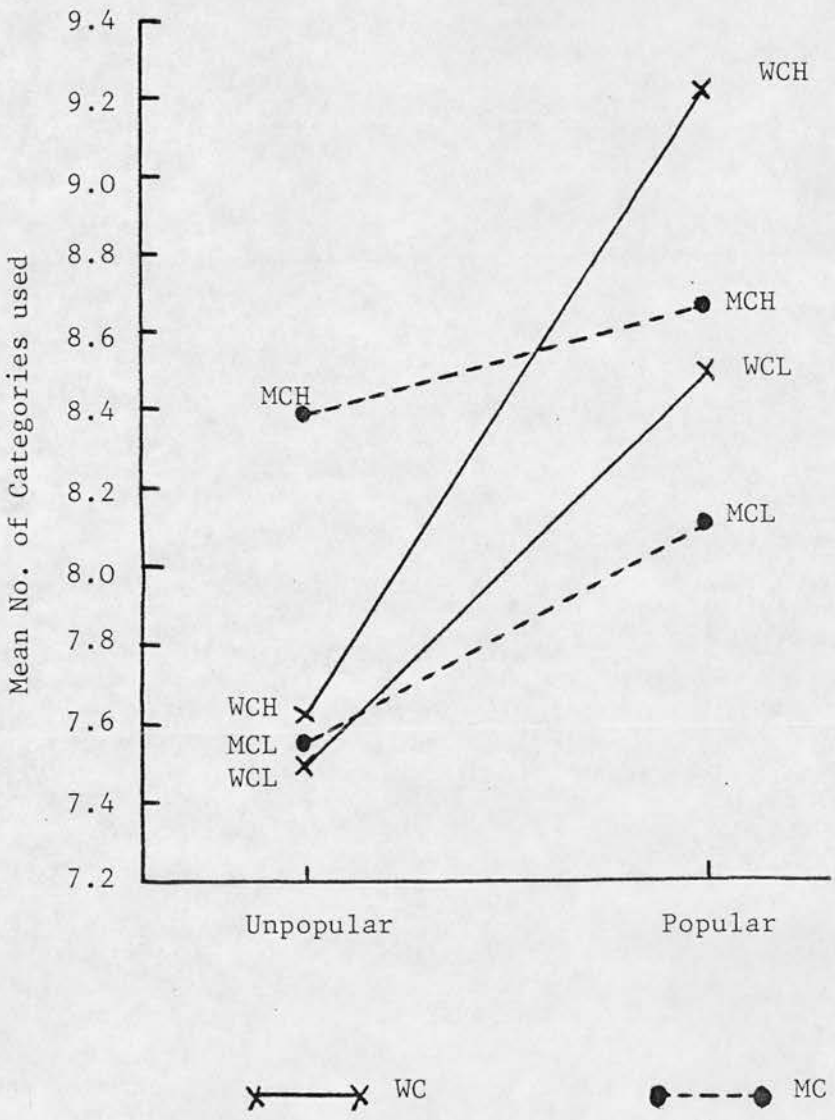
Range of uses of language Mean numbers of categories used by each group (S.D.'s in brackets)

	Middle Class		Working Class	
	MCH	MCL	WCH	WCL
Popular Topic	8.67 (0.87)	8.11 (1.45)	9.22 (1.09)	8.50 (1.07)
Unpopular Topic	8.40 (0.70)	7.56 (1.94)	7.63 (1.06)	7.50 (1.20)

Figure 6.5

Range of Uses of Language

Number of categories used by each group in both popular and unpopular topic conversations.



It can be seen that a simple prediction of the kind made by Halliday regarding the (presumably working class) "restricted code" user's restriction on the range of language uses gains little support from the present study. For popular conversations at least, the reverse is suggested, in that working class groups appear to use a slightly wider range of language functions than middle class groups (an average of 9.22 as against 8.67 for high affiliation groups, and 8.50 as against 8.11 for low affiliation groups). In unpopular conversations middle class groups do appear to use a slightly wider range, although this may simply reflect the shorter length of working class unpopular conversations (See Chapter 5, 5.4). Figure 6.5 also suggests a possible class-popularity of topic interaction. Thus, whilst working class groups seem to use a slightly narrower range of language functions when talking about a subject not particularly close to their hearts, this cannot be taken as evidence of a working class language "deficit". It may, rather, be seen as an expression of a feeling of pointlessness as regards the continuing of the conversation. Only middle class high affiliation groups display a marginally wider range of language functions under these circumstances. In the more "formal" setting of the unpopular topic conversations the range of usage of MCL, WCH and WCL groups is very similar (around 7.6 categories each). Only the middle class high affiliation group differs with a mean of 8.4. As may be seen below (Table 6.16) using a one tailed t test for independent samples, this difference is a significant one.

Table 6.16

Significance of difference between means
Comparisons of range of language uses

Unpopular Conversation	WCL	vs.	WCH	N.S.
	MCL	vs.	MCH	Sig. at 0.05 level
	MCH	vs.	wcl	Sig. at 0.05 level
Popular Conversations	MCL	vs.	MCH	N.S.
	WCL	vs.	WCH	N.S.
	MCL	vs.	WCH	Sig. at 0.05 level
MC Groups	Lo aff.Unp.	vs	Lo aff.pop.	N.S.
	Hi aff.Unp.	vs	Hi aff.pop.	N.S.
WC Groups	Lo aff.Unp.	vs	Lo aff.pop.	Sig. at 0.05 level
	Hi aff.Unp.	vs	Hi aff.pop.	Sig. at 0.0005 level

Some other significant differences in means also exist (using a one tailed test for either independent samples or matched pairs as appropriate). In popular conversations the affiliation effect is most apparent with greater variety being displayed by WCH groups, followed by MCH, WCL and MCL groups in that order. The differences between WCH and MCL is a significant one.

The actual nature of restriction on uses of language is shown in Table 6.17 both in terms of where such restriction occurs and of which categories of language use are excluded. There are obvious similarities shown in the table. For instance categories 12 (Instruction), 9 (Marking of Emitter) and 4 (Encounter Regulation) are used in all conversations in all groups, and categories 2, 3 and 14 were not encountered at all (and have thus been excluded). Some conversations from all groups exclude categories 6 (Regulation of Self), 10 (Role Marker) and 1 (Avoidance Function). Category 11 (Reference) is omitted much more frequently in unpopular conversations than popular ones, as might be expected, and Category 8 (Expression of Affect) is also omitted more in unpopular

Table 6.17

Range of Uses of Language: Categories Omitted

UnPopular Topic

Groups	Categories											
	11	12	13	5	15	6	8	9	7	4	10	1
Unpopular												
MCH						100	10.0				90.0	50.0
MCL	22.22		22.22	88.89		100	33.33		33.33		100	44.44
WCH	37.5			100		100	12.5		25.0		100	62.5
WCL	12.5		25.0	87.5		100			25.0		100	87.5
Mean % age omitted	18.6	0	11.81	69.10	0	100	13.96	0	20.83	0	97.5	61.11
Hence mean % included	81.94	100	88.19	30.9	100	0	86.04	100	79.17	100	2.5	38.89
Popular												
MCH	22.22			66.7		88.89					100	55.56
MCL			22.22	88.89		77.78	11.11		22.22		100	55.56
WCH				33.33		100			11.11		88.89	44.44
WCL				62.5	12.5	87.5					100	87.5
Mean % age omitted	5.56	0	5.56	62.86	3.13	88.54	2.78	0	8.33	0	97.22	60.77
Hence mean % included	94.44	100	94.44	37.14	96.87	11.46	97.22	100	91.67	100	2.78	39.23

conversations, again in line with possible common sense predictions. Greater use of these language functions in popular conversations suggests both a greater amount of "factual" knowledge about and a greater degree of emotional involvement in these conversations. Another difference, perhaps not so predictable, concerns the frequency of use of category 7 (the Regulatory Function). A greater mean percentage of conversations omitted this category in unpopular conversations, thus suggesting that more language of manipulation and control is to be found in popular conversations. This analysis supplements the results recorded earlier in that the Newton-Spurrell coefficients analysis also suggested the importance of the popularity variable in accounting for the attributable variance.

6.7.2 The use of Personal and Heuristic Functions

The second prediction we wish to test, again stemming from Halliday, concerns the predicted restriction in use of what Halliday (1973) claims to be the two most crucial functions vis-à-vis educational and academic success, namely the Personal and Heuristic functions, by working class groups. "In order to be taught successfully", argues Halliday, "it is necessary to know how to use language to learn; and also, how to use language to participate as an individual in the learning situation". (p.18).

Use of the Personal Function

Focussing first on the personal function (defined in the present study as Robinson's categories 5 + 15 + 6 + 8 + 9), results presented in Tables 6.6(a) and 6.6(b) and Table 6.13 have suggested strongly that the most important variable in predicting the use of this group of language functions is the popularity topic variable, together with the popularity-class

interaction. Whilst social class is thus not entirely ruled out as a predictor of the use of the personal function group, neither does it on its own make any clear-cut contribution to the attributable variance. Of greater importance than class is the topic variable. Tables 6.6(a) and 6.13 indicate that Robinson's five functions designated as the Personal function group do not appear to constitute an homogeneous grouping. There are some similarities between categories 8 (Expression of Affect) and 9 (Characteristics of Emitter), and perhaps category 15 (Opinion Statements) in that there appears to be an overall greater use of these three functions in unpopular conversations, whilst categories 5 (Performative Utterances) and 6 (Regulation of Self) appear to function in the opposite direction, namely, there is marginally greater use of these categories in popular conversations. While it is not an easy task to explain this difference (perhaps again we are seeing no more than random variation), we do receive some support for the decision to treat categories 5 (Performatives) and 15 (Opinion Statements) as separate categories. Only in the case of category 6 (Regulation of Self), a very rarely encountered category (See Table 6.6(a)), is the involvement of the variable class (on its own) suggested (See Table 6.13), and even in this case, the presence of the popularity-affiliation interaction is also necessary. Thus, the results presented in the present study cannot be said to provide unambiguous support for Halliday's prediction concerning the use of the personal function group. Indeed, in some cases the working class groups make greater use of at least some categories within this function group than do their middle class counterparts (e.g. Category 5, Popular Conversations, and category 6 where the class variable appears to be important on its own). Thus whilst the class variable might be of marginal importance, any "deficit" is more associated with the middle class than with the working class groups.

Use of the Heuristic Function

Turning now to the Heuristic function (Robinson's category 13), we see that, unfortunately, insufficient variance was explained for the Newton-Spurrell analysis to be continued. Table 6.5(a) (p.171) indicates that in all cases, the high affiliation groups make greater use of this language function (supporting the common sense view that a certain degree of familiarity and ease with people in the learning situation can facilitate the learning process). A possible affiliation-class interaction is suggested (particularly for the unpopular conversations) by the graphs (Figure 6.6).

Also clearly suggested by the graph is the greater readiness of working class groups to make use of this function, particularly when such groups are highly affiliated. Certainly, there is, once again, no hint of a working class "deficit".

6.7.3 Use of the Informative Function

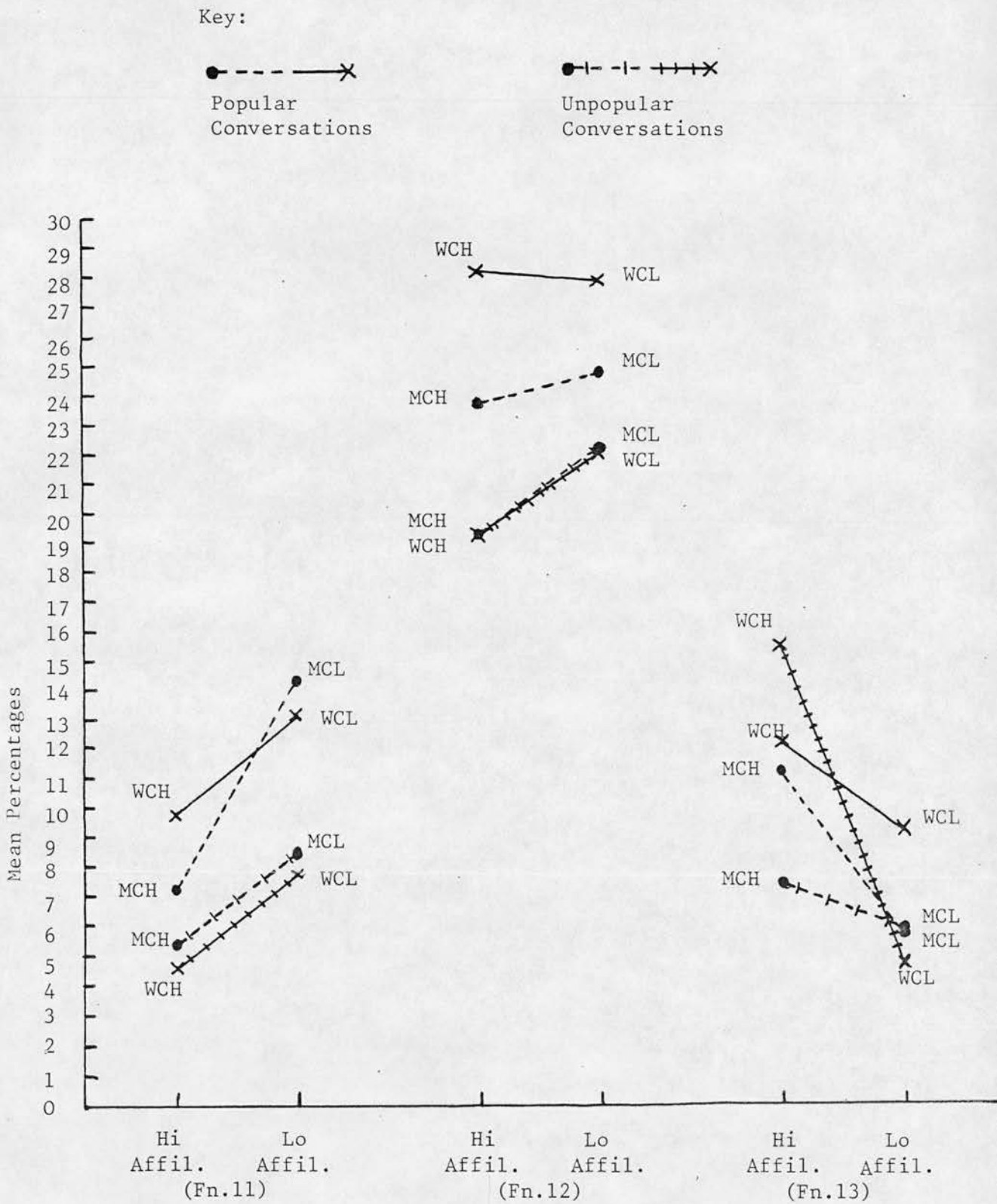
The third area of investigation concerns the informative function of language (Robinson's categories 11 + 12). Whilst no specific prediction was made concerning these categories, the observed educational underachievement of working class children (e.g. Holman, 1968, and Chapter 2, 2.8) might lead one to suppose that working class children may not be making sufficient or appropriate use of this language function. Table 6.13 again points to the importance of the affiliation-class interaction in relation to the use of this language function, and Table 6.5(a) (p.170) suggests that for function 11 (Reference) at least, in all cases there appears to be greater use of this category by groups who are low in affiliation, whilst for function 12 (Instruction), this is true for only three out of four cases (the exception being working class groups in popular topic conversations). Figure 6.6

FIGURE 6.6

Language Function Categories 11, 12 and 13

Affiliation-Class Interactions in Popular and Unpopular Conversations

(Mean scores: Particular functions/function groups as a percentage of all functions ascribed to a conversation)



illustrated these differences and points out the overall greater use of category 12 by working class groups in popular conversations. We cannot, therefore, on the basis of these results, infer any reluctance on the part of working class groups to make use of the instruction function, neither do we have any evidence to support any clear-cut class-based differences that might indicate a working class deficit in the use of the group as a whole.

6.7.4 "Cognitive" uses of language

In order to investigate possible differences in what Henderson (1970) calls "cognitive" uses of language, we must combine our results for language function categories 11, 12 and 13. Table 6.11 shows that the variable of major importance in "explaining" the variance for the informative function was found to be the affiliation-class interaction, with some importance attaching to either or both of the other two first order interactions, namely the popularity-class interaction and the popularity-affiliation interaction. Both the Informative and the Heuristic functions have been discussed above, and no evidence to support middle class superiority with respect to language use in these areas was found. Thus, the present analysis does not find the class differences found by Henderson, so that either the self-reported differences in the speech of mothers would not be found in the mothers of our boys, or any class-based differences in maternal speech do not influence the speech of the young people.

6.7.5 The Regulatory or Control Function

Henderson's (1970) analysis suggested a greater use of language for interpersonal/affective reasons by working class mothers. While it is not easy to draw parallels between the categories in the present study and those used by Henderson, Figure 6.4 (p.163) shows a possible grouping of the categories used in the present study into the "macro categories" suggested by Henderson.

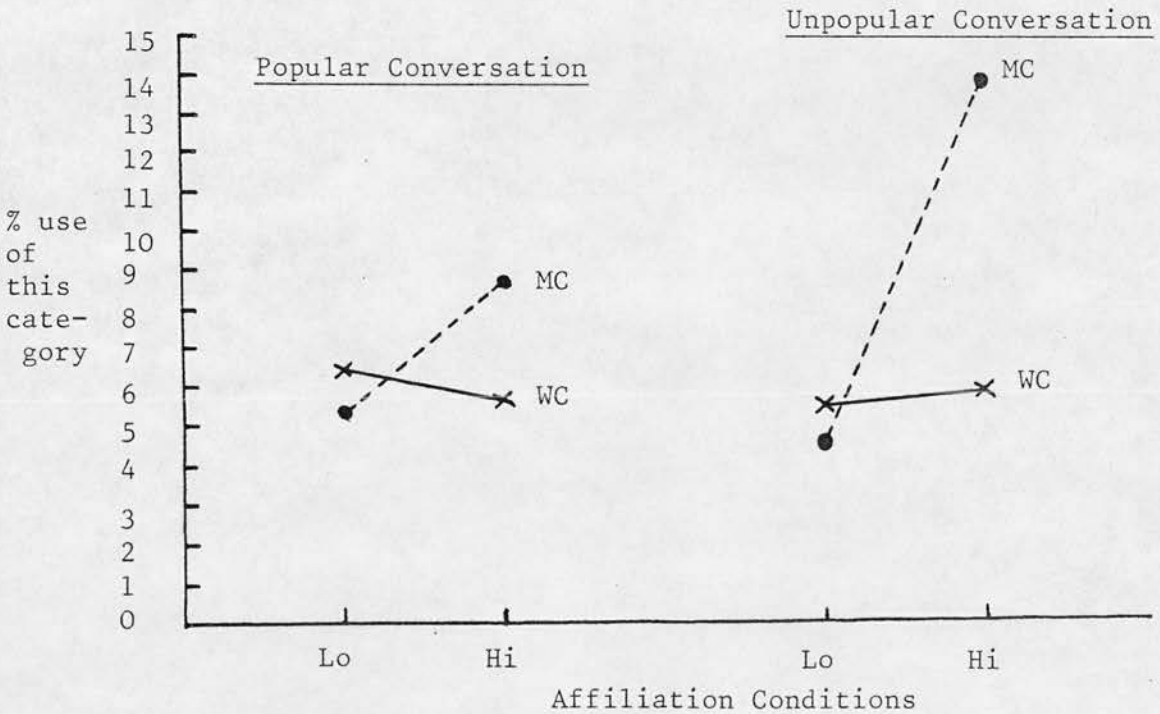
Thus, the interpersonal/affective function will include all Robinson's categories previously assigned to the Personal Function (categories 5 + 15 + 6 + 8 + 9) as well as category 7 (Regulation). The Personal function has already been the focus of discussion (see above), so we now turn our attention to category 7 (Regulatory/Control).

Use of the Regulatory Function

Table 6.6(a) (p.175) suggests no clear involvement of any variable (hinting at an affiliation-class interaction, perhaps, See Figure 6.7), but the results of the Newton-Spurrell coefficients analysis indicated that popularity of topic was the most important variable. However, it is to be remembered that a cautious interpretation must be made of any results involving the popularity variable. Furthermore, any affiliation effects may be masked, in that there are competing possible explanations for the influence of affiliation on regulatory verbal behaviour.

Figure 6.7

Difference in use of Category 7 (Control Function)



It is possible to argue that with increasing affiliation, the feeling of being at ease experienced by subjects could give rise to an increase in use of language for control purposes. It is equally plausible to argue, on the other hand, that when not in the company of one's chosen friends (low affiliation situation) one has less to lose by an attempt at regulation of another's behaviour than in a high affiliation setting. Brandis and Henderson's (1970) study of "social class differences in communication and control" suggested that middle class mothers were less likely to use coercive methods of control than working class mothers. In other words "Controls" such as those involving physical punishment ("I'd smack him") or verbal punishment ("I'd tell him off") were less likely to be used by the middle class mothers than "Appeals" (e.g. to a rule governing a class of behaviour such as "children of your age should be able..." or to a rule of a personal nature such as "If you stay up you'll be tired in the morning"). (For details see Brandis and Henderson, 1970, p.94). The Brandis and Henderson study provided no information concerning naturally occurring attempts at the regulation of someone else's behaviour. The present study suggests that there are no obvious quantitative differences in adolescent children's use of the control function as they relate to social class or affiliation though there may be qualitative differences, in that category 7 is large and includes verbal behaviour such as joking as well as commands and threats. It is possible to divide category 7 into more "fine" divisions, and in order to investigate any qualitative differences between our conversations, thirteen control sub-categories were identified. (This list is not claiming to be exhaustive, merely to incorporate the methods of control found in the transcripts of the conversations in the present study). The sub-categories, along with the prime focus of manipulation and the response probably expected by the speaker and examples of these control categories are shown in Table 6.18. While, in many cases, the response expected by the

TABLE 6.18

Types of Control Comprising Category 7 (Regulation or Control Function)

Control Sub-Categories	Focus of Manipulation	Expected Response by speaker	Examples
1. A unilateral move to close the conversation	Manipulation of the encounter	End of conversation change of topic/ speaker	"Cheerio folks!" "We'll stop now".
2. A unilateral bid to change topic of conversation			"We'll talk about football now".
3. Interruption			Any speaker who initiates an utterance before the previous speaker has finished. "Butting in".
4. A dogmatic claim	Manipulation of views	Agreement change of opinion	"All the Norwegians come over here te shop" "Yeh but th' hooligans aren't keen.
5. A dogmatic disagreement			"The majority of girls do not like football". "No they aren't" (Scottish owned) (referring to the ownership of North Sea Oil fields). "You don't have te buy a table" (for table tennis)
6. Persuasion by argument			"But it still willna last for ever" (referring to North Sea oil, and arguing against Scottish independence).
7. A command	Manipulation of behaviour (verbal & non-verbal)	Action/Answer	"Shut up!"
8. A demand for an answer			"Well?" "Couldn't you say something?"
9. A threat	Negative manipulation of affect	Silence/Appeasement?	"Just you listen..."
10. A scornful remark			"See ye dinny know what y're say'n".
11. An insult (addressed to another participant			"You're disgusting". "Well, you're stupid." "Spin! Spin!" (you are lying)
12. An "affective" remark (informal "jokes", "horror" stories etc.)	Positive Manipulation of Affect	Laughter "Shock-Horror"	Rude remarks against England, girls (e.g. "Hockey's a lass's game!"). Hibs or Hearts (local football teams), various religious denominations.
13. A more formal joke & remarks involving some degree of verbal wit.			"No man lives there". "The should make it no man's land". "The Strathclyde police!"

N.B. Sub-category 11 (insult) can be seen to "belong" to both negative and positive focus.

speaker did occur in others it did not. For example, a command was sometimes followed by a threat or an insult, a threat by a counter-threat, a bid to change topic of conversation by resistance from other participants and so on. However, it was always clear from the reply that the initiating remark had been interpreted as an attempt at control.

Looking initially at the first three sub-categories (a unilateral move to close the conversation, a unilateral bid to change the topic and an interruption), large differences in percentages of these three controls used by each sub-group are to be seen (See Table 6.19). It is not surprising to note that a greater proportion of unilateral moves to close conversations are to be found in low affiliation groups, with the highest percentage occurring in WCL groups in unpopular conversations. Unilateral bids to change topic of conversation appear to be more a feature of popular conversations, though no very striking pattern of usage is apparent. There does appear to be a marked class difference in the use of interruptions as a means of manipulating the encounters, with middle class groups making greater use of this category in all conditions. The lowest percentage of middle class use of this category (45.12% in MCL groups unpopular topic) is higher than any of the working class percentages (the highest of which is 42.75% in WCL groups popular topic). This difference could be open to at least two interpretations, firstly, it is possible that the middle class "advantage" in this respect represents a greater verbal fluency in this group of boys, indicating that they were "bubbling over" with ideas and information. It is equally plausible to argue that the middle class groups were displaying a less mature understanding of one of the implicit rules of conversation, namely that only one person talks at a time.

Table 6.19

Differential use of Controls involving Manipulation of the Encounter (% of all controls used)

	Unilateral Move to close convers.	Unilateral bid to change topic	Interruption
Popular Topic			
MCH	1.15	2.87	49.43
MCL	3.51	2.63	56.14
WCH	1.42	2.13	24.11
WCL	2.29	0	42.75
Unpopular Topic			
MCH	0.71	2.14	47.69
MCL	2.44	0	45.12
WCH	2.56	0	20.51
WCL	5.79	1.92	38.46

There is also a small topic difference in the use of interruptions, more occurring in popular topic conversations.

Table 6.20 shows the percentages of control utterances that are further classified (by the author) as "dogmatic claim", "dogmatic disagreement" and "Persuasion by argument" for the 8 sub-groups of conversations. Dogmatic claims appear to be more a feature of working class conversations than of middle class ones, with the difference being greatest in high affiliation groups. (See Figure 6.8).

Dogmatic disagreements also, in popular conversations at least, appear to follow a similar pattern to dogmatic claims. In unpopular topic conversations, however, it is middle class groups who make greater use of this control category than do their working class peers. Moreover, the greatest use is in low affiliation groups of both social classes. The possibly more subtle form of manipulating opinions and attitudes, that of persuasion by argument, is almost exclusively a feature of middle class groups, with this category appearing only in middle class conversations and in the popular topic WCL conversations. There appear to be no topic differences in use of this sub-category, but an affiliation difference (with the greatest use of persuasion in low affiliation groups) does occur. In this group of control sub-categories it is the middle class groups who appear to be using a more diplomatic means of control (less dogmatism on the whole, and more persuasion by argument).

Table 6.21 shows the percentage of control utterances used that fall into the sub-categories of "Commands" and "Demands for an answer". There appears to be no obvious pattern with respect to the use of commands, unless it be a complex interaction between affiliation and class indicated by popular topic percentages) and topic (indicated by a reversal of popular conversations Class-Affiliation effects in unpopular

Table 6.20

Differential use of Controls involving Dogmatic Claims & Disagreements and Persuasion by Argument (% of all controls used)

	Dogmatic Claims	Dogmatic Disagreements	Persuasion
Popular Topic			
MCH	3.45	8.05	4.02
MCL	4.39	8.77	9.65
WCH	15.60	21.28	0
WCL	4.58	17.56	3.05
Unpopular Topic			
MCH	6.05	12.81	6.41
MCL	6.10	15.85	8.54
WCH	15.38	7.69	0
WCL	9.62	15.38	0

FIGURE 6.8

Dogmatic claims: percentages of this sub-category of control by topic and class

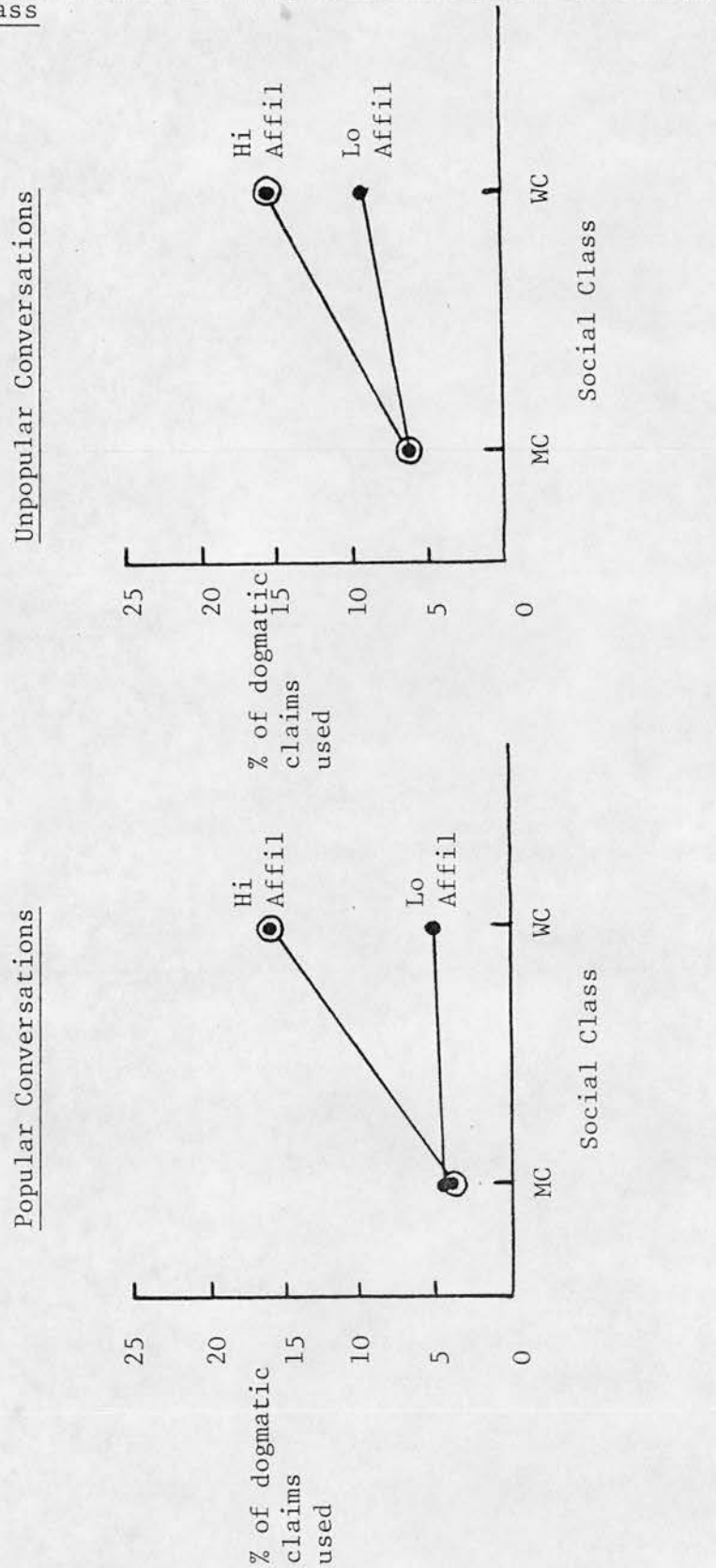


Table 6.21

Differential use of Controls involving Commands and Demands for a response (% of all controls used)

	Commands	Demands for an answer
Popular Topic		
MCH	2.87	0.57
MCL	0.88	1.75
WCH	4.26	2.84
WCL	6.11	3.82
Unpopular Topic		
MCH	1.07	3.91
MCL	6.10	1.22
WCH	5.13	2.56
WCL	0	0

conversations). Again, demands for an answer appear to show a difference pattern according to popularity of topic, but once again, percentages of use are very small, making it unwise to draw any firm conclusions from these data.

Table 6.22 displays the different use of controls involving both the negative and the positive manipulation of affect. The most striking observation is the relatively small proportion of negative controls used by all groups in relation to the large proportion of positive manipulations. Threat is very infrequently used, but, in our samples, only by middle class boys. Manipulation by controls likely to lead to laughter (or delighted horror in one case of an account of a medical condition) occurs more in high affiliation groups, as might be expected. It also appears to be used more often by working class groups, and in unpopular topic conversations.

Thus, though small, there do appear to be some qualitative differences in the control function of language as used by our middle class and working class groups. On the "negative" side, middle class boys interrupted more and made what few threats were observed in conversations, whilst on the "positive" side, they made fewer dogmatic claims than the working class boys and made more extensive use of persuasion by argument. Conversely, the working class boys interrupted less than the middle class boys, and made overall greater use of positive manipulation of affect. However, they appear to make more dogmatic utterances, and resort less often to persuasive techniques than their middle class peers.

The present study appears to provide no support for Turner's (1973) findings which suggested that working class children (at age 5 years at least) gave more abrupt commands and threats than their middle class peers, the middle class children (particularly at age 7 years) gaining high scores for the use of "less forceful options". Neither does the present study indicate any middle class "advantage" with respect to

Table 6.22

Differential use of Controls involving both negative and positive manipulation of affect (% of all controls used)

	-ve affect			+ ve affect	
	Threats	Scornful Remarks	Insults	Affective Remarks	Jokes
Poupular Topic					
MCH	0.57	4.02 (4.59)	1.15	21.26	0.57 (21.83)
MCL	0.88	0.88 (1.76)	1.75	8.77	0 (8.77)
WCH	0	3.55 (3.55)	5.67	12.77	6.38 (19.15)
WCL	0	3.82 (3.82)	0.76	12.21	3.05 (15.26)
Unpopular Topic					
MCH	0.35	2.49 (2.84)	1.07	15.30	0 (15.30)
MCL	0	1.22 (1.22)	1.22	9.76	2.44 (12.20)
WCH	0	7.70 (7.70)	2.56	17.95	17.95 (35.90)
WCL	0	2.89 (2.89)	2.90	17.31	5.79 (23.10)

the focussing on the affective state of others involved in the situation (though the two studies are not comparable in any real sense, Turner's subjects being required to tell stories from picture cards). Both studies, however, do hint at the "relevance of social class to the child's definition of the control situation, and his choice of control", (p.184).

Thus, it seems that in respect of the regulative function at least, there are some small social class differences in emphasis, but it cannot be argued that either group is "deficient" compared with the other. Each group has its own strengths and weaknesses. Types of control used by group members appear to vary as a function of conversational setting (c.f. Bedrosian and Prutting's 1978 study of interactions between mentally retarded adults, their speech-language pathologists, peers, parents and normal children. While the mentally retarded adult subjects expressed the same types of control as normal adults, the types used varied with conversational setting).

6.7.6 Differentiated and undifferentiated forms of address

Turning now to our last prediction, namely that concerning the choice of forms of address and "role options", it may be recalled that with regard to the language function category 10 (Role Marker) in the present study the number of utterances falling into this category was found to be very small indeed. Thus, it would not be wise to place too much credance on the results of the regression analysis. Table 6.23 shows the percentages of conversations within a sub-group that use either proper names or nicknames rather than an undifferentiated form of address, together with the percentage of proper names as opposed to nicknames, and mean number of occurrences of such forms of address per conversation. As might be expected, in all cases, the more frequent occurrence of proper or nicknames seems to be associated with high

Table 6.23

Forms of Address used: proper names and nicknames

(Percentages of conversations within a sub-group using proper names and/or nicknames and the mean number of occurrences of such forms of address per conversation).

Popular Topic

	Percentage of Conversations using proper names or nicknames	Percentage of proper names used in conversations where proper or nicknames used	Mean No. of Occurrences of such forms of address per conversation
MCH	40.00	60%	2.50
MCL	22.22	83.33%	3.00
WCH	77.78	27.78%	5.14
WCL	33.33	100%	4.00

Unpopular Topic

MCH	20.00	60%	2.50
MCL	11.11	100%	1.00
WCH	25.00	0%	4.00
WCL	12.5	100%	2.00

affiliation of group members. There also appears to be a topic effect, in that usage is higher in popular topic conversations. Furthermore, there does appear to be a class effect as predicted from Bernstein and Robinson, namely, there is more widespread use of the differentiated form of address by working class boys in all conditions, though the effect is more marked in popular topic conversations. The choice of a nickname rather than a proper name (defined as the formal version of the boy's Christian name) is also of interest. The most commonly occurring nickname is what Morgan et al., (1979) term a "more cosy diminutive" e.g. Thomas becomes Tommy, Tom or Tam, James becomes Jimmy and so on. Use of such diminutives, they claim, alters the projected personality. Certainly the use of such nicknames is associated with high affiliation in groups, where, it can be argued, the nicknames can be used positively to "delineate a social set/ group from the outside", (Morgan et al, 1979). This appears to be exactly the case in the present analysis. (See Table 6.23).

Other forms of nicknames include an occurrence of the use of the surname of a boy (in a MCH popular conversation), one example of the use of initials (in a MCL popular conversation) and several examples of nicknames formed from personal characteristics (e.g. "Jokey", "Smiley"). It was not possible to classify one nickname "Smorgy". No example of a derogatory nickname was found in the conversations.

Thus, it is possible to argue that the present analysis provides some small amount of support for the prediction from Robinson and Bernstein concerning the use of a finer set of discriminating address forms in the case of our working class boys where statuses may be thought to be ascribed rather than achieved (though we have no information to enable us to classify our boys according to family type i.e. personal or positional). However, whilst our boys do appear to "use linguistic means as one way of sorting out their society"

(Morgan et al., 1979), it does not seem to make any kind of sense to describe the linguistic behaviour of our working class boys as in any way "deficit". Conversely, it could be argued that the middle class boys who appear to limit their use of both given names and nicknames, have something in common with von Hagen's "primitives" (quoted in Morgan et al., 1979) who limit their use of personal names in order not to diminish the power of such names.

6.7.7 Use of Language for affective reasons

Henderson's (1970) study, it may be remembered, suggested a greater use by working class mothers of language for affective reasons. The present analysis provides some information on the use by 13 year old boys of language for affective reasons. We have already considered the use of language in order to manipulate the affective state of listeners. Language function 8 (Expression of Affect), also, is concerned with the use of language for affective reasons. (See Table 6.1, p.155). Table 6.13, summarizing the variables found by the regression analysis to be of both major and minor importance in "explaining" the variance, shows that, for category 8, the popularity-affiliation interaction together with the popularity-class interaction and/or the popularity variable is of greater importance than any other variable including the class variable. Thus, the present study suggests that Henderson's findings with regard to the ideas of working class mothers may not tell us anything about the actual language of their children.

6.8 General Discussion

As well as investigating various specific predictions, the present study hoped to look more generally at a wide variety of uses of language, particularly with regard to possible social class differences. Table 6.14 suggests that the class

variable on its own plays little part in explaining the variance in the present study. (Only for Category 6, the regulation of self function, does the class variable appear to be of major importance, and here overall use is very small). However, the affiliation-class interaction appears to be of major importance in "explaining" the variance of a number of language functions, particularly in the "cognitive" group (Categories 11 and 12), and the "social" group (Categories 4, 10 and 1). The popularity variable appears to be of greater importance with regard to the "personal" function. In spite of the apparent importance of the class variable in an interaction (A-C), the present study does not provide any evidence of working class deficit, and only in the case of the forms of address analysis is any prediction supported.

The present analysis of functions of language points to the importance of both the affiliation-class interaction, and to a lesser extent to popularity of topic differences. Previous analyses of the same conversations in terms of parts of speech, explicitness of reference and so on have suggested that, in the case of pronoun usage, familiarity with people or topic has a greater influence of such use than does the class variable (See Chapter 3). Similarly, anaphoric and exophoric reference also appears to be more a function of topic and affiliation differences than of class differences, though the popularity-class interaction was also found to be of some importance. Thus the present analysis does suggest some parallels between form and function, as did the Williams and Naremore (1969) study of the functions of speech of 10 to 13 year olds.

6.9 Conclusion

The present analysis, investigating differences in the use and functions of language, suggests that for the "Cognitive" and "Social/Roles" categories of language function, the

affiliation-class interaction is the variable of greatest importance in explaining the variance, whilst for the "Personal" function of language, topic popularity is the most influential variable. Various predictions have been tested, and those referring to class differences supported only in the case of the forms of address analysis. No evidence of working class deficit was found. Referring to previous analyses, some parallels between form and function were hinted at.

PERSONALITY STUDY

7.1 Introduction

> "Habits of syntax, it seems to me, say much about this obscure subject".
>
> (Erikson, 1968)

It may be recalled that the analysis of personal pronouns described in Chapter 3 suggested that differences in usage between the eight conditions (Popular vs. Unpopular topic, high vs. low affiliation, MC vs. WC) might be better "explained" in terms of affiliation and degree of popularity of topic, rather than as Bernstein claimed, in terms of socio-economic class. However, the present study did find the middle class groups tended to use the pronoun "I" more frequently than working class boys. Furthermore, the analysis of conversation structure (Chapter 4) suggested that the middle class low affiliation boys were more "socially sensitive" than the equivalent working class group in that their pronoun use changed during the course of the conversation, being initially a low rate of use, but increasing significantly over time as common ground was being established.

Since pronoun usage is felt to be far from a trivial habit (Lawton, 1968 and Erikson above), and since Bernstein (1962(b)) has favoured the view that constraint in the use of "I" (characterising a restricted code of language) indicates a reduction in the "verbal differentiation of self", it was felt that some investigation into the personality development of the two groups of boys was necessary. Is the greater middle class use of the personal pronoun "I" indicative of a more advanced stage of personal development, a greater degree of

individuation or differentiation than that achieved by the working class boys? Is their preference for the pronoun "I" paralleled by some recognisably greater measure of personality development and adjustment? Similarly, can the apparently greater middle class social sensitivity suggested by the conversation structure analysis be matched by a greater degree of social adjustment as measured by a recognised personality test? It was in order to answer questions of this sort that the following study was carried out.

7.2 Adolescence

Whilst it is unlikely that all the boys taking part in this study were at the same stage of development, it is accepted by many social psychologists (e.g. Coleman, 1974) that by the age of 11 or 12 years adolescence has been entered into. Certainly none of the boys had "broken" voices at the time of the study, so perhaps they could more properly be thought to be at Blos' (1962) preadolescent or early adolescent stage of development. During adolescence young people have a certain number of tasks to perform, claims Havinghurst (reported in Cockram & Beloff, 1978), tasks such as achieving an appropriate dependence/independence pattern, achieving an appropriate affectional pattern, achieving a sense of belonging, acquiring an appropriate sex role, developing intellectual skills and concepts, attaining economic independence and developing conscience, morality and a set of values. Tasks relating to economic independence and intellectual skills are clearly not the concern of the present study (though some links with Piagetian intellectual development are made), but other tasks may be seen as relevant to the developing personality of the adolescent.

Adolescence is a time of both physical and psychological growth. The twin concepts of "differentiation" and "integration", so clearly applicable to physiological growth,

may be equally usefully applied to the psychological growth process. Differentiation in psychological terms, may be seen as the development of the individual, whilst integration may be seen to relate to the harmony one attempts to achieve in one's relations with one's fellow beings. "Individuals are different, but they must exercise these differences in such a way that there shall be the greatest harmony in the behaviour of men" (Anderson and Anderson, 1954). Thus, integration is inseperably linked with individuation, and there is a "mutual complementation of group identity and ego identity" (Erikson, 1968).

To Erikson, adolescence is a time uniquely associated with the concept of identity (though Blos 1967, described adolescence as a second individuation process, the first having been completed with the attainment of object constancy). "Identity" seems to be closely linked, if not identical with what has been called variously "self-esteem", "the self concept", "a self system", "self experience", "self awareness", "self representation" and "ego development". Erikson claims that "ego strength" emerges from the "mutual confirmation of individual and community". It is necessary for the adolescent to achieve independence which involves loosening of family (particulary parental) ties. In fact, Coleman (1974) suggests that adolescence may in some senses be effectively defined by the progress which is made in the relationship between the young person and his parents. It has further been suggested that this process of emancipation necessarily involves a struggle (e.g. Hall in Cockram & Beloff, 1978), but some studies (e.g. Bandura and Walters, 1959) have found no evidence for this. Furthermore, peer group values were found by Bandura and Walters to be not apparently in direct opposition to family values. Thus, in this case, membership of the peer group did not appear to generate family conflict. Social awareness comes through the "social process" (Erikson) through which individuals are

organised into groups. Thus, if we can make some measure of personal development, of social adjustment and family relations, it may be possible to get some idea of the relative maturity of our boys. Furthermore, if, as Bernstein hints, the middle class preference for the use of "I" compared with the working class feeling of "we-ness" has any psychological reality in terms of personality development then we may see significant differences between the two socio-economic groups on both personal adjustment scores and in terms of social adjustment.

7.3 Background to the present study

The idea of a link between developmental levels relating to self and social awareness and "conditions of social existence" (Luria, 1976) is not new. Between 1931 and 1932 Luria collected data (in the form of interviews with illiterate peasants, collective farm workers and students in technical schools) relating to self-analysis and self-awareness. He distinguished three levels of awareness, the least developed being used by those subjects who made references to material conditions in describing their own shortcomings and good qualities (mostly illiterate peasants). The most advanced level, which analysed psychological features, was used by those subjects with a greater level of education. The collective farm workers formed a transitional group. A characteristic of this transitional level was that "the analysis of one's own individual peculiarities frequently gave way to an analysis of group behaviour, and the individual 'I' was frequently replaced by the collective 'we' taking the form of an evaluation of the behaviour or efficiency of the subject's group" (Luria, 1976). Luria sees this tendency towards "we-ness" as being part of a stage of social development, following awareness of external features, but predating awareness of intrinsic qualities. It is possible that a similar developmental sequence is a feature of the adolescent period.

A previous study of personality adjustment and socio-economic status of subjects' families using the first edition of Rogers' Personality Inventory, the "Test of Personality Adjustment" carried out in 1958 by Burchinal, Gardner and Hawkes, found an inverse ranking of 5th grade children's mean scores in relation to the prestige level of the father's occupation. The higher (least adaptive) mean scores were made by children with unskilled worker fathers, whilst lowest (most adaptive) scores came from the children of business or semi-professional fathers.

7.4 Rogers' Personal Adjustment Inventory

The test chosen as likely to provide the most appropriate information was Rogers' Personal Adjustment Inventory (Rogers, 1961). This test (a revised edition of Rogers' "A test of Personality Adjustment") makes assessment of a young person's attitude toward himself, his family and his peers. It consists of such questions as:

A) Peter is a big, strong boy who can beat any of the other boys in a fight.

Am I just like him?	Yes								No
Do I wish to be like him?	Yes								No

B) Do you have any good friends?

a) none at all
b) one or two
c) a few good friends
d) many friends
e) hundreds of them.

Four diagnostic scores may be calculated from the answers to questions.

The first, or Personal Inferiority (PI) score indicates roughly the extent to which the individual thinks himself to be physically or mentally adequate in relation to his peers. The second score, Social Maladjustment (SM), attempts to measure the child's group adjustment, the extent to which he is unhappy in his group contacts, poor at making friends and in the social skills generally. Family maladjustment (FM) is the third score to be obtained. This score measures the amount of conflict the young person shows in his relations with parents or siblings. A fourth score, the Daydreaming score, measures fantasy life. This score was calculated (MC = 2.13 and WC = 2.27) but is not discussed.

The test-retest reliability of the several diagnostic scores in the inventory ranged between 0.65 and 0.72, the overall reliability being r = 0.72 with a probable error of 0.046. The correlations between scores on the test and ratings made by clinicians were r = 0.39 for Personal Inferiority, r = 0.43 for Social Maladjustment and r = 0.38 for Family Maladjustment.

Norms are based on a study of 136 "normal" and "problem" children from a New York City public school carried out nearly 50 years ago. Thus, scores are most useful in considering group tendencies. (Rogers, 1961).

7.4.1 Scoring the test

The scoring of items of Type (A) above in the test employs comparisons between the child's description of himself and that of his ideal self. A measure of "conflict" is made thus:

Yes		✓							No
Yes							✓		No

Here the answers display a conflict of 5 points.

Katz and Zigler (1967) claim that self-image disparity (the degree of difference between real and ideal self-image) is an adaptive feature in personality development, and in their study note that such disparity increased in a linear fashion with age, with the greatest change occurring between the 10 and 13 year levels. Rather than being ominous in nature, increasing self-image disparity would invariably appear "to accompany the attainment of higher levels of development" (Katz & Zigler, 1967). Rogers considers the direction of disparity as well as the size, and for example, with regard to question (A) above a real self rating towards the "Yes" counts towards a personal inferiority score, and as such is not taken to be adaptive.

7.5 The Present Study

For the present study a subsample of 50 boys (25 classed as middle class and 25 as working class) were selected by the headteacher (largely on the grounds of administrative convenience) from the 72 boys who had taken part in the pronoun and conversation studies. It has been suggested (Smith and Bordonaro, 1975) that self esteem may be affected by what is termed "unexpected social status placement". Smith and Bordonaro found that an unexpected high placement relative to one's peers was likely to lead to lowered self-esteem, but that an unexpected low placement was only likely to lead to a change in self esteem when the placing agent was attitudinally similar to the subject. (Self esteem was lowered again). In the present study some subjects may be pleased with their placement, having been included in the subsample, whilst some peers were excluded (high placement situation characteristics). At the same time, non-friends and possible "social inferiors" will have been included in the subsample, thus some aspects of the low placement situation also obtained. It is not possible to tease out these two opposing aspects of the situation but it is thought not unreasonable to

suppose that self-esteem ratings are not likely to be materially affected by the selection and composition of the subsample.

The three main areas of investigation, namely personal adjustment, social development and family relations will be treated separately.

7.6 Personal Adjustment

7.6.1 Introduction

In a study of social class and the self concept (Klausner, 1953) three factors emerged, insecure aggression, "self aggression" and good social self valuation, and associated with these factors were particular groups of (Marxian) social classes. Lower middle classes and the proletariat (roughly equivalent to our working class category) were characterised by insecurity and inferiority hiding behind aggression, whilst upper middle classes and the bougeois (roughly equivalent to our middle class category) were socially withdrawn and "self aggressive". A transitional group (lower middle class and upper classes) were found to have good social self valuation and good social relations.

A different model of ego development was used by Lorr and Manning (1978) in their attempt to measure such development by a sentence completion and a personality test. Leovinger (reported in Lorr & Manning, 1978) proposed a nine stage model of ego development, labelled variously, presocial, impulsive, self protective, conformist, self aware, conscientious, individualistic, autonomous and integrated. Lorr and Manning's subjects, aged between 15 and 21 years, were allocated to one of the nine possible ego levels and the largest single group of boys were situated at the "Self aware" level. The highest stage reached was the individualistic, and the lowest impulsive. Thus, although in the present

study, the boys were somewhat younger than Lorr and Manning's sample, it seems likely that, accepting Loevinger's model, our 12 to 13 year old subjects will be situated somewhere between the group (conformist) stage and the individualistic stage, and are not yet likely to have passed the self aware stage of ego development. A further finding pertinent to the present study was that the Lorr and Manning boy's socialization scores increased with ego level thus supporting Erikson's "mutual complementation of group identity and ego identity", the balance between ethos and ego.

Frequently quoted studies relating social status and personality development were carried out in the late 1950's by Sewell (1956, 1961). Reviewing almost 20 years of research into the topic, Sewell and Haller (1956) note that a low but positive relationship between status and measured personality adjustment had been reported, with middle class children scoring significantly higher than their working class peers. Believing these studies to be not sufficiently rigorous to warrant such conclusions, Sewell & Haller test out the hypothesis themselves, and again produce a small positive but significant correlation. However, they state "the results do not provide much encouragement for the view that social class is a major determinant of childhood personality, and they offer still another instance of evidence against the claims that middle class children suffer greater personality maladjustment than lower class children". (Sewell, 1961). Such claims of middle class adjustment, first made public by Green in his American Sociological Review article of 1946 ("The Middle Class Male Child and Neurosis") do not form the starting point of current research, and indeed, the deficit hypothesis can be said to imply the reverse position.

7.6.2 The Present Study : Predictions

Returning now to the present study and to the predictions to be made on the basis of Bernstein's 1962(b) study, if, as Bernstein suggests, "the orientation of the (elaborated code using) individual is based upon the expectation of psychological difference, his own and others" (pp.112-3), then we might predict that middle class subjects will show greater personal adjustment than their working class counterparts. The results relating to the use of the personal pronoun "I" (Chapter 3) might be taken as supportive of this position.

7.6.3 Results

Mean Personal Inferiority (PI) scores, together with standard deviations for the two groups are shown in Table 7.1 below.

Table 7.1

Means and Standard Deviations for PI scores

	Working Class	Middle Class
x	10.39	10.25
S.D.	3.91	4.09
N	25	24

It appears that no significant difference exists between the two groups with respect to PI scores. A Mann Whitney U test was carried out and this lack of significant difference was supported ($p = 0.37$ one tailed test). The "average" score taken from Rogers' norms is 14.3, and scores between 12 and 15 taken to constitute the range of normal adjustment. A high score (16 or above) is taken to indicate a "rather serious degree of maladjustment", whilst a low score (below 12) means that individuals are showing less than average evidence of

maladjustment (Rogers, 1961). Thus, by this token both our groups show good personal adjustment.

7.6.4 Discussion

No significant difference was found between the two groups, thus we cannot accept the experimental hypothesis that middle class children's scores will be lower than those of the working class children, (i.e. middle class showing greater personal adjustment), and it appears that both groups are equally well adjusted with regard to their personal development. There is no suggestion of Klausner's insecurity and inferiority in our working class group. Erikson (1968) claims that "it takes ... a healthy personality for the "I" to be able to speak out of all these conditions (the many different states one finds oneself in) in such a way that at any given moment it can testify to a reasonably coherent self" (p.217). However, the greater middle class use of the pronoun "I" does not seem to be correlated with personality adjustment scores indicative of a more "healthy" personality than the working class boys. It is, therefore, possible that the choice of "I" in speech may be little or more than a stylistic variation, or class correlated idiosyncracy.

However, it is possible that in the case of the working class group who, when discussing a popular topic use "we" to a greater extent than the middle class group (See Chapter 3), something akin to the process that Luria (1976) has observed may be at work; the process noted in his transitional group whereby the individual "I" was replaced by the collective "we". The data from the present studies do not enable us to say whether our boys would make predominantly external, concrete descriptions of themselves (indicative of an early stage of development) or whether their descriptions would be predominantly of intrinsic qualities (indicating a more advanced stage). However, Mohr (1978) found that, in rating

the sense of personal identity, 6th graders (13-14 years) showed more "internal" judgements than 1st and 3rd graders whose judgements relied more heavily on external and behavioural features. It is, thus likely that our sample is at a transitional stage of development, somewhere between Luria's "collective" stage and the more individuated stage of appreciation of intrinsic qualities. Indeed, our boys (mean age 12.73 years) are not yet likely to be fully into Piaget's period of propositional or formal operations (Piaget claims this period is preceded by a sub-period of organisation which occurs between the ages of 11 and 13 (Piaget, 1970 in Mussen (Ed.)). Indeed in a review of empirical research concerning the onset of the stage of formal operations, Hill and Palmquist (1978) state that only between 35% and 70% of subjects beyond the age of 12 manifest formal operations on the tasks employed. "Bright" adolescents evidence formal operations more frequently than average I.Q. groups of the same age. Hill and Palmquist further report that formal operation is a "characteristic potentiality" rather than a characteristic of adolescence. The association of personal or social developmental level with Piagetian cognitive level seems to be legitimate in that the development of a sense of self-identity has been found to parallel Piaget's cognitive developmental sequence in slightly younger children at least (Guards and Bohan, 1971). Similarly, Oppenheimer's (1978) model for the development of the processing of social perspectives (discussed further below) looks at the relationships between various cognitive variables and the processing of such social perspectives.

If, as it seems, the boys in the present study are at a transitional stage of both cognitive and personal development we cannot say whether, on the basis of Luria's proposed developmental sequence, the less frequent use of "we" is likely to be a sign of having moved forward to a more advanced level of development or whether it is indicative of being in

an earlier developmental stage, though the former possibility is perhaps the more likely. However, as personal and social development are thought to be complementary, further light may be shed on this problem by the social adjustment scores of the two groups. In view of the minimal differences noted both in this study with regard to PI scores and in Chapter 3 with regard to the use of "we", it is likely that use of this pronoun is also stylistic variation which signifies little if anything regarding personality development.

7.7 Social Development

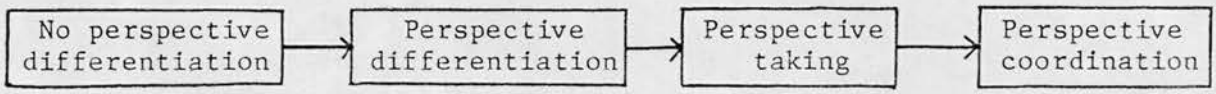
7.7.1 Introduction

It has been suggested that personal development and social development are parallel and complementary processes (Erikson, 1968; Lorr and Manning, 1978). As individuation procedes one's relations with other people develop towards an harmonious interaction with them. Social or group adjustment, therefore, may be seen as a measure of the level of social skills of an individual. Although there is some evidence to suggest that within the adolescent age range there is a decrease in dependence upon the group (e.g. Coleman, 1974), it is likely that individuals at this stage will be preoccupied to some extent at least, with the analysis and evaluation of groups within society so as to find their own place in the world outside the family.

Oppenheimer (1978) proposes a model of what he terms "the development of the processing of social perspectives", a model which incorporates such attributes as the growing ability to analyse social situations, and the ability to take the perspective of others in the social environment. Oppenheimer's model is reproduced in Table 7.2. The process of differentiation begins at stage II. This is the stage at which awareness that other people may have feelings and values

Table 7.2

Oppenheimer's schematic representation of the development of the processing of social perspectives (after Oppenheimer, 1978)



different from one's own becomes apparent. At stage III the individual acquires the ability to take into account the "inferential product" that has been acquired. Stage IV sees a synthesis of one's own point of view and the inferred point of view of others in the social environment. This "coordination of perspectives" is regarded by Oppenheimer as an essential process for mature interacting and the development of recursive thinking is assumed to play an important role in the acquisition of Stage IV. In a review article on social cognition and social relations in early adolescence, Hill and Palmquist (1978) quote Selman's view that it is during early adolescence that the individual moves to a higher stage in the development of the social-perspective-taking, that of coordination of all possible third person perspectives (corresponding to Oppenheimer's Stage IV). Lorr and Manning's experimental study (1978), as has already been noted, found that socialisation scores of their boy subjects increased with ego level.

Whilst the social maladjustment score from the RPI may not be a direct measure of the degree of development of social perspectives processing, it does attempt to measure the child's group adjustment, the extent to which he is happy in his group contacts. This must, to some extent at least, be related to the stage of processing of social perspectives that the individual has achieved. An individual taking no account of the individuality of his companions is likely to be less successful at making friends, for example, that one who can

both take and coordinate the perspectives of others into the exercise of his social skills.

7.7.2 Predictions

On the basis of Bernstein's claims, it is likely that, as far as social adjustment is concerned, one would predict that restricted code users (predominantly working class subjects) having a "range of identifications... in common" (Bernstein, 1962(b), p.111), will show greater social adjustment than their middle class peers. The experimental hypotheses based on Bernstein's claims may, thus, be stated as follows:

H_E : WC boys will have lower social maladjustment scores on the RPI (greater social adjustment) than the MC boys.

However, the results of the conversation profile study (Chapter 4) suggest that, in this one situation at least, middle class boys may be showing greater social sensitivity than their working class peers, and it can be argued that, on this basis, we might expect middle class boys to score lower than the working class boys on the social maladjustment question too. Thus, the experimental hypothesis will state merely that there will be a difference in social maladjustment scores between the two groups.

7.7.3 Results

The mean social maladjustment scores and standard deviations for the two groups are shown in Table 7.3.

Table 7.3

Means and Standard Deviations for Social Maladjustment (SM) Scores

	Working Class	Middle Class
x	12.72	14.63
S.D.	5.42	6.70
N	25	24

As can be seen, the middle class SM score is higher (indicating poorer adjustment) than that of the working class groups. Thus, the original prediction based on Bernstein's claims that working class subjects, identifying more closely with the group than their middle class peers, will show greater social adjustment seems to receive some support. No support was obtained for the middle class superiority in social skills suggested by the conversation study. This difference between the two groups was tested, however, (Mann Whitney U test), and found to be not significant ($p = 0.20$ 1 tailed test & $p = 0.41$ 2 tailed test). The average score taken from Rogers' norms is 13.2, and the average range between 10 and 14. 15 or over is a high score (indicating a degree of maladjustment), and a low score (less than average maladjustment) is one of below 10. Thus, both groups fall within the "average" range.

7.7.4 Discussion

The present study of personal and social development provides no support for the greater social senstivity shown by the middle class low affiliation group in the conversation study. In neither the case of the PI score nor the SM score do we find any significant social class differences. Thus, either there are no differences between the 2 socioeconomic groups, and the slight differences in pronoun usage already discussed are stylistic variation only, or the RPI is not a sensitive enough instrument to measure existing differences.

A third aspect of adolescent development, namely relations with the family, forms the subject of the next section.

7.8 Family Relations

7.8.1 Conflict in Adolescence

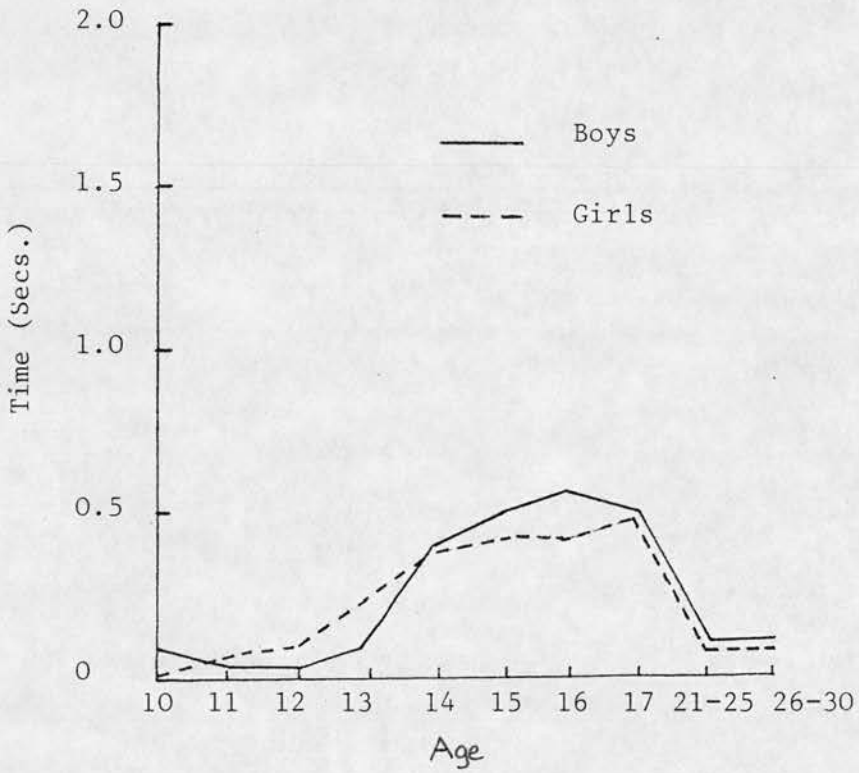
The relationship between the adolescent and his family, particularly his parents, plays a large part in the "storm and stress" theory of adolescence. This theory suggests that there is a fundamental struggle between the two generations as the young person attempts to emancipate him or herself from parental ties. Opinions seem sharply divided as to whether or not this conflict actually exists (theorists favouring the conflict view including G Stanley Hall, Anna Freud and more recently, Phyllis Greenacre, as well as Erik Erikson, and those taking the opposite standpoint counting many experimental psychologists in their numbers. Coleman (1974) chooses Albert Bandura as a representative of this opposing point of view).

Powell (1955) investigated age and sex differences in the degree of conflict within certain areas of psychological adjustment. Difference in reaction times to neutral and critical words with respect to parent-child relationships were taken as an indication of differing amounts of conflict. Mean differences in reaction times between neutral and 'parent-child' words on a word association test are shown in Figure 7.1.

It can be seen that up to the age of 13 years, boys appear to show relatively little conflict, but thereafter there is an increase in conflict until about the age of 16 years followed by a decrease over the period 16 to 21 years. Thus, if the amount of conflict is to be taken as an index of maturity it must be linked to the chronological ages of the subjects under

Figure 7.1

Mean differences in reaction times between neutral and 'parent-child' words on a word association test (after Powell, 1955)



study. It, therefore appears that some indication of conflict during the age range of the boys in the present study may be taken as a sign of increasing maturity. Powell's study seems to provide some empirical support for the Storm and Stress theory, though conflict expressed through reaction times, or indeed through scores on the RPI, may not manifest itself in overt storm and stress between parent and young person.

A study carried out by Coleman (1974) supports the general pattern described above, but found an increase in conflict between the ages of 11 and 13 years. Less than 60% of the

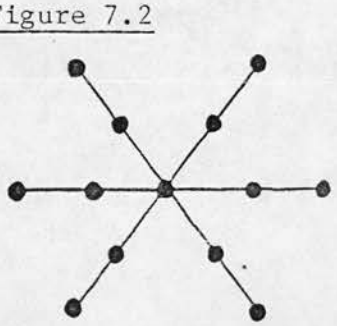
group studied expressed conflict at 11 years, but over 70% did so at 13. Over 80% expressed it at 15 years of age and over 85% of the sample did so by the age of 17 years. Coleman's sample included representatives from all five social classes, but was slightly biased towards classes I and II (34.1% in classes I and II compared with 17.5% in the UK population in 1966, and 17% in classes IV and V compared with 30.3% in the UK population).

Coleman (1974) also reports a study carried out by Willmott in 1966 which, again looking at conflict in 14 to 20 year old working class boys, found little overall conflict, but a maximum at the 16 to 18 year old level. No comparable group of middle class boys was included in the study. However, the general picture that emerges seems to be that any conflict encountered by male adolescents and their families is likely to occur late in adolescence rather than at the age of the boys in our study.

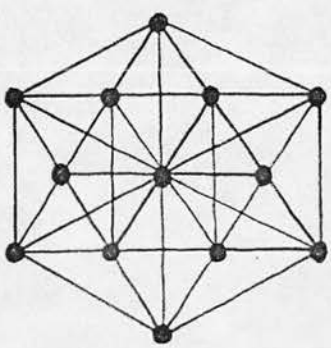
7.8.2 Klein's "Social Networks"

Relevant to this area of study is Klein's (1965) distinction between what she terms the different "social networks" (borrowing the nomenclature from Bott) associated with the two social classes. It is claimed that networks of family ties and connections may be either "loose knit" or "close knit", the two types of network resulting from different degrees of connectedness between members of a family. Such networks are illustrated in Figure 7.2.

Figure 7.2



Loose-knit network



Close-knit network

2 social networks
(after Klein, 1965)

In traditional working class life, claims Klein, close-knit networks of family relationships are more usually encountered, though economic changes increasing social mobility, and changes in norms (accelerated, according to Klein, by the widespread distribution of the TV set) are loosening such network connections. In middle class life, on the other hand, Klein observed more loose-knit social networks. It would not be surprising if such radically different patterns of family relationships were to influence, for example, the preferred pattern of childrearing. Such social class based differences are the subject of many and various studies reported in Bronfenbrenner (1972). Fewer studies have looked at differences in management of the adolescent-parent relationship, though in a cross-cultural study of young adults in the US and Denmark, Kandel and Lesser (1972) found that whilst in both cultures adolescents were not estranged from their parents, different patterns of parental authority and communication seemed to give rise to differences in the degree of independence experienced by the young adults. The Danish adolescent, brought up under a "democratic" regime (parent and child make decisions jointly) was found to be more independent from parental influence than his American counterpart whose family pattern of decision making was most frequently observed to be "authoritarian" (parents alone make decisions).

7.8.3 Parental Values

Kohn (1972) claims that members of different social classes come to see the world differently, and develop different conceptions of social reality and different systems of values. Values, he claims, bridge the gap between the individual's position in his particular social structure and his behaviour. Kohn quotes studies which have looked at parental values in both the working and the middle class. For instance, reference is made by Kohn to Duvall (1946), who in the

"traditional" working class found neatness, cleanliness, obedience, respect of adults and an aim to please adults highly valued, contrasting with the middle class values of eagerness to learn, love for parents, confiding in parents, happiness, sharing, cooperation and good health. Kohn (1956-57 reported in Kohn, 1972) found a pattern of parental values in the two socioeconomic classes similar to that of Duvall, but also found that many "core values" such as honesty were common to both sets of parents.

7.8.4 Bernstein's Person-Oriented and Positional Families

It is not entirely clear how, exactly, Bernstein envisages the relationships between young people and their parents, particularly as they may be influenced by socioeconomic class. However, he acknowledges Bott's work on communication networks, and describes the communication system of the working class in terms of "strong communal bonds" (Bernstein, 1971). In the working class social group furthermore, he claims there is little exercise in decision making, and successful assertion is always collective (rather than individual). Working class work involves physical manipulation (rather than symbolic), the working class father experiences authority at home but not at work, and socialisation of children is carried out by children "in an environment offering little intellectual stimuli". Also, associated with these behavioural characteristics, according to Bernstein, is the physical fact of overcrowding. However, he claims that "to say this about a communication system is not to disvalue it, for such a communication system has vast potential, a considerable metaphoric range and a unique aesthetic capacity", (p.143). This claim is not elaborated, and seems to pay only lip service to potential critics of his description of working class behaviour. Bernstein's 1971 paper introduces the concepts of person-oriented families and positional families. Family type, in conjunction with the earlier stated language differences of elaborated versus restricted code use, gives rise to four socialisation-code

systems: positional-restricted code, personal-restricted code, positional-elaborated code and personal-elaborated code. The person-oriented (middle class) family Bernstein associates with an open communication system where psychological qualities are instrumental in decision making processes and role acquisition alike. In the positional (working class) family it is formal status that plays a role in decision making and in the formation of relationships. "In such a family type we could expect close relationships and interaction between parents and grandparents", (p.153). Though Bernstein claims support from "the literature " for the classification of the working class family as being positional, no ready empirical evidence is offered to the reader. However, the theory would seem to suggest that working class social systems of family relationships are close yet extended. It is possible to argue, therefore, that during the period of adolescence when some form of conflict between the parental generation and young people is likely there will be greater conflict experienced by working class families by virtue of the close and more numerous relationships involved, this conflict being either overtly expressed or experienced by the young person privately. It is, on the other hand, also possible to argue that the existence of the more extended family may lead to a reduction in parent-child conflict. However, the nature of any conflict in parental relationships, as suggested by Coleman's 1974 study, seems to involve primarily the developing idea of independence of the individual, whereby the unquestioning acceptance of parental authority which Coleman found characterised the 11 year old responses, by the age of 13 begins to give way in some small measure at least to an acknowledgement that indpendence is possible (though Coleman found that the boys experienced this possibility as being both remote and frightening). By the age of 15, in the boys particularly, the conflict was out in the open, and not until later (See Figure 7.1, 7.8.1) was the struggle over and independence finally accepted. This being

so, it is likely that the extended family will pose more of a threat to the developing independence of the individual and will thus give rise to a greater degree of conflict than a more restricted family network.

7.8.5 Hypothesis of the present study

Thus, the experimental hypothesis, based on the above argument and assumptions is that more conflict will be expressed by working class boys, in the form of a higher FM score on the RPI (less adjustment in family relationships) than their middle class peers.

7.8.6 Results

Means and standard deviations for FM scores for the 2 groups are shown in Table 7.4.

Table 7.4

Means and Standard Deviations for FM Scores

	Working Class	Middle Class
x	11.67	9.52
S.D.	3.49	2.07
N	23	21

It can be seen that the mean FM score for the working class group is higher than that for the middle class group which supports the suggestion of a greater degree of conflict in the families of the working class boys. The mean score from Rogers' norms was found to be 8.6, with the "average" range from 7 to 10. A score of 11 or above Rogers rated as "high" and indicative of a "rather serious degree of maladjustment" (if taken together with high scores in other areas). The difference between the scores of the 2 groups was tested (Mann Whitney U test), and on a one tailed test just failed to reach significance ($p = 0.058$).

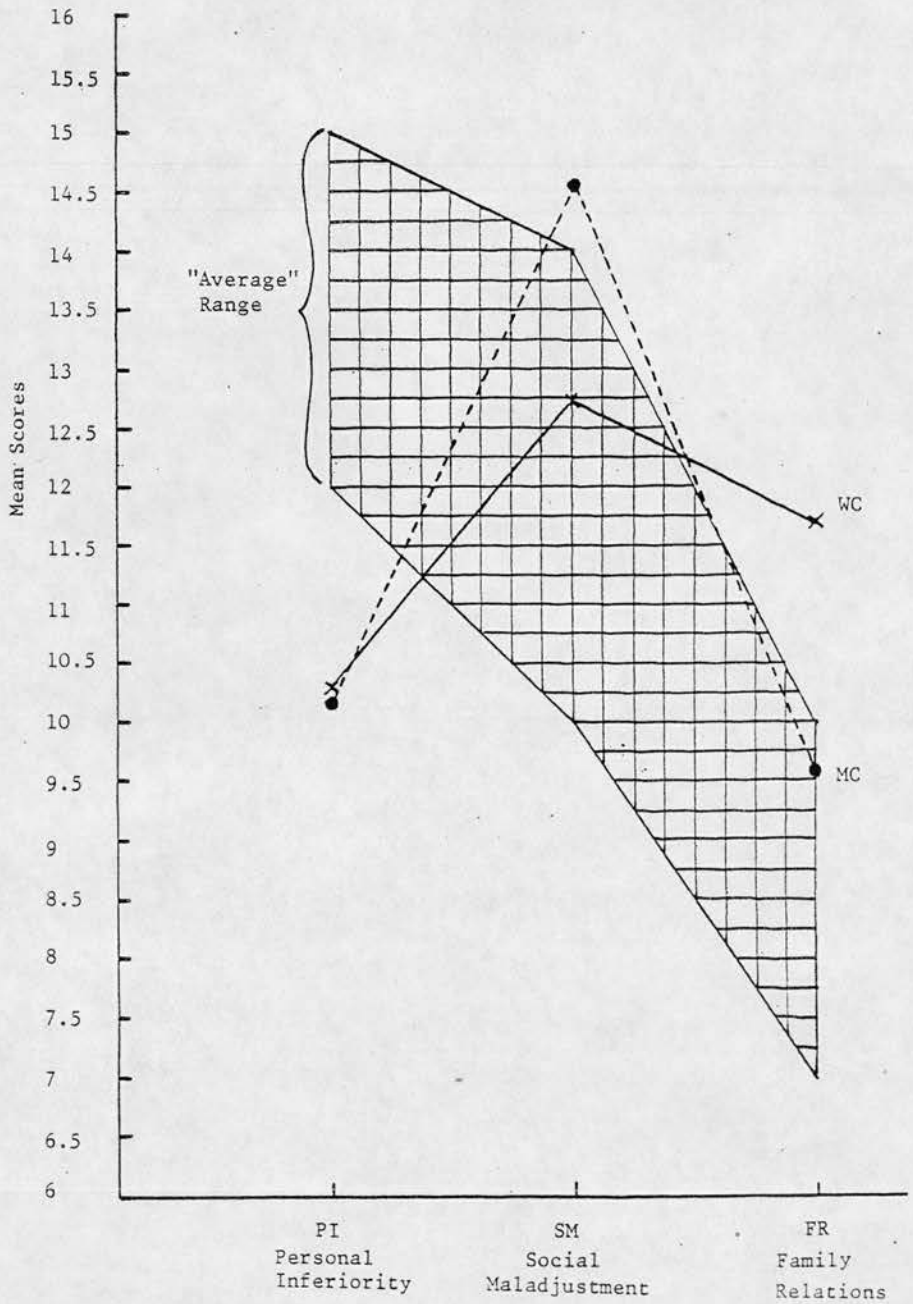
7.8.7 Discussion

It appears that, although the difference between the scores of the two socioeconomic class groups just failed to reach significance, the pattern of scoring was as predicted, with the working class boys showing a greater degree of conflict in the family situation that their middle class peers. Thus it may be that the scores are reflecting the purportedly closer and more extended family networks (and their potential for quantitatively more conflict) in which the working class boys find themselves. Furthermore the Rogers' PI Family Maladjustment score, as well as investigating relations with parents, looks also at relations with siblings. Thus it is possible that the greater working class score on this measure is due in some part at least to sibling rivalries rather than to adolescent conflict between the generations. Looking at the family sizes in our sample, it was noted that the average number of children in the working class families was 3.59 (S.D. = 1.60) compared with 2.95 (S.D. = 1.30) in the middle class families. From information obtained about the family composition of the boys in this study, the average was calculated at 3.20 children. 40.74% of working class boys in our sample were found to have over the group average number of siblings, whilst only 24.39% of the middle class boys lived in larger than average families. It is, therefore, possible that the higher working class family maladjustment score may be due in part at least to sibling rivalries. It is also, of course, possible that our working class boys, by expressing slightly more conflict than their middle class peers, are at a marginally later stage of personality development. Clearly a further investigation of this possibility is necessary.

Personality "profiles" for the 2 groups are shown on Figure 7.3. The "average" range is shown as a checked area, and it can be seen that the scores of boys in the present study fall outwith this area at several points. The PI scores for both

FIGURE 7.3

Personality profiles of the 2 SEC groups in relation to Rogers' Norms



groups fall below the shaded area (our groups were "better" adjusted than Rogers' "normal" group), but the middle class SM score is situated just in the "less adjustment" area above the average range indicating a greater degree of conflict in this group. It may be possible that the middle class - working class cross over between SM and FR scores, clearly shown on the graph, can help clarify the results of this personality study. The higher social maladjustment score in the middle class group may suggest that the focus of attention of these boys is, and their loyalties are still to be found within, the family framework. This same group shows less maladjustment with respect to the family than the working class group. The opposite pattern is evident for the working class boys. It is possible that the working class group are further on the road to what Coleman (1974) calls "disengagement", the process of finding love/hate objects outside the family.

One section of the RPI concerns a number of hypothetical characters (all boys) each of whom has a different characteristic attribute. For example, there is Fred, who fights a good deal with his brother and sister, Don who has more spending money that the other boys, Alfred who always does as his mother tells him, Joe the leader, Sam who does well in his school work, and so on (See Table 7.5). Two questions associated with this section, "Which of these 16 boys would your mother like best?", and "Which of these 16 boys would your father like best?", enable us to obtain some idea of what the two groups see their parents' values to be. Table 7.6 shows the choices made by the boys together with their rank orders. Testing for the degree of relatedness (by the Spearman Rank Order Correlation), the choices attributed to middle class mothers and working class mothers was found to be strongly related (r_s = 0.84, significant at 0.002 level), the middle class and working class father's choices found to be loosely related (r_s = 0.57, significant at 0.05 level), the middle class mothers' and middle class fathers choices strongly

Table 7.5

Boys and their defining characteristics

PETER	A big, strong boy, good at fighting
GEORGE	Enjoys reading
ED	Best football player in school
SAM	Gets good marks for school work
ALLAN	A daydreamer with make-believe friends
JOE	A leader
STEVEN	No knowledge of school games
ALFRED	Always obeys mother
JOHN	Most popular boy in school
HARRY	Has more girlfriends than other boys
WALT	"Dumb" in school work
JACK	Doesn't heed parents
DON	More pocket money than other boys
BOB	The brightest boy in school
JAMES	Sits alone and imagines things
FRED	Fights a good deal with siblings

Table 7.6

Estimates of Parental values : choices made by boys together with their rank orders

	MC Mother	Rank	WC Mother	Rank	MC Father	Rank	WC Father	Rank
PETER		10.5		12	2	4	3	3.5
GEORGE		10.5		12		11		13
ED		10.5		12		11	6	1
SAM	8	2	10	1	6	2	3	3.5
ALLAN		10.5		12		11		13
JOE		10.5		12	2	4		13
STEVEN		10.5	1	6		11	1	7.5
ALFRED	6	3	3	3		11	1	7.5
JOHN	1	4	1	6	2	4	1	7.5
HARRY		10.5	1	6		11	2	5
WALT		10.5		12		11		13
JACK		10.5		12		11		13
DON		10.5		12		11		13
BOB	9	1	6	2	12	1	5	2
JAMES		10.5	2	4		11		13
FRED		10.5		12		11	1	7.5
	N=24		N=24		N=24		N=23	

related (r_s = 0.84, significant at 0.002 level), and the working class mothers' and fathers' choices loosely related (r_s = 0.51, significant at 0.05 level).

The attributes of the boys thought to be preferred by the parents of the boys in our sample are shown in order of preference in Table 7.7.

Table 7.7

Attributes of boys of choice

MC Mothers		Brightest at school	
		Good at schoolwork	
		Obeys mother	
		Popular	(4)
MC Fathers		Brightest at school	
		Good at schoolwork	
	=	Popular	
	=	Strong	
	=	A leader	(5)
WC Mothers		Good at schoolwork	
		Brightest at school	
		Obeys mother	
		Has imagination	
	=	Not good at games	
	=	Popular	
	=	Has many friends	(7)
WC Fathers		Best football player	
		Brightest at school	
	=	Strong	
	=	Good at schoolwork	
		Has many girlfriends	
	=	Not good at games	
	=	Obeys mother	
	=	Popular	
	=	Fights with siblings	(9)

In attempting an interpretation of these choices, a number of possibilities present themselves. Firstly, it is possible to argue that the expectations of the middle class boys (as expressed by their choices on behalf of their parents) are more limiting to development than the working class ones. For

instance, only 6 different boys are listed by middle class boys compared with 10 by the working class group. There is, furthermore, little evidence for working class lack of interest in academic affairs, particularly in working class mothers. "Academic" expectations ("Brightest", "Good at schoolwork") feature in 70.83% of middle class mothers' choices, in 75% of middle class fathers', and 66.67% of the time for working class mothers and 34.78% for working class fathers. Working class fathers were thought to have sporting expectations - 26.09% for working class fathers, and no such expectations in any other case. The pattern of "masculine" expectations ("Popular", "strong", "A leader", "Having many girlfriends", "Fights") is similar in both class groups (25% of middle class fathers are thought to value these qualities and 4.17% of middle class mothers, compared with 30.43% of working class fathers and 8.33% of working class mothers). Whilst the options open to the boys did not include many attributes that have featured in previous studies of value systems, for example, honesty, neatness or happiness (Duvall, 1946; Kohn, 1972, reported in Kohn, 1972) it is interesting to note that obedience, previously associated with working class value systems, was the boys' choice for 6 middle class mothers compared with only 3 working class mothers and 1 working class father.

7.9 Summary

2 groups of boys, one working class, one middle class, completed the Rogers' Personality Inventory, which it was hoped would shed some more light on the greater use of "I" by middle class groups found in the pronoun study, and on the question of social skills in general. 3 scores were calculated, a Personal Inferiority (PI) score which indicates the extent to which the individual thinks himself to be adequate, the Social Maladjustment (SM) score which measures the young person's group adjustment, and the Family Relations

(FR) score which measures the amount of conflict and maladjustment which the child shows in his relations with his parents or siblings. No significant differences were found on any score, though the difference on the FR score only just failed to reach significance. Findings from the present study were related to Bernstein's theory and various hypotheses tested.

TIME PERSPECTIVES

8.1 Empirical Studies of Time perspective

While much of Bernstein's work on sociological factors and linguistic variation has been revised, refined and restated over the past two decades, his early theoretical "observations" on time perspective have to a large extent lain fallow. Some research into the time perspectives of different social classes was carried out, however, in America in the fifties and early sixties following on from the anthropological studies of Bateson a decade or so earlier. A trickle of studies continues into the late 1970's.

Le Shan's much quoted and criticised study of 1952 (Le Shan, 1952) to which we shall return shortly, does not seem to have come to Bernstein's notice when, in 1958, we find a reference to social class differences in the child's "time span of anticipation", (Bernstein, 1958). Bernstein emphasises the different organisation of environment experienced by the middle class and working class child respectively. A child in the middle class, Bernstein claims, grows up in a controlled environment in which social relationships are "explicitly regulated", and relationships between means and distant ends are of paramount importance. "The future is conceived of in direct relation to the emotional life of the child", (Bernstein, 1958, p.25). The middle class individual thus develops an ability to attain distant ends by "purposeful, means-end chains". The working class child, on the other hand, does not experience such a formally organized environment. The values "expressed" by the working class structure do not give rise to the spatial and temporal organization characteristic of the middle class environment. Long term goals tend to be replaced by hazier notions of the future with an emphasis on people rather than "the rigorous working out of connections". Present activities, claims

Bernstein, have greater value than future activities, and so a different, more limited time perspective results.

Le Shan's study, setting aside for a moment various reservations and doubts expressed as to its validity, looked at just those social class differences to which Bernstein draws our attention in 1958. Le Shan hypothesised that members of different social classes will display differing "temporal orientations". In the lower classes, the present is of paramount importance whilst the middle classes plan further and further into the future with increasing age. The experiment which Le Shan carried out used children between 8 and 10 years of age as subjects, and involved simply a request to "Tell me a story". The resulting stories were inspected and the period of time covered by the action of the story measured. The results of Le Shan's analysis confirmed his hypotheses.

Social class differences on a number of measures of time perspective have also been found in other studies over the past twelve or so years. Lessing (1968), comparing future time perspective (FTP) of groups of 11, 14 and 17 year olds, assigned to either working class or middle class groups on the basis of the occupation of the principal wage earner in the family discovered that "whenever significant relationships were found between length of FTP and other variables, the longer FTP was always associated with the more favourable psychological attributes (e.g. higher intelligence, higher academic achievement, higher socio-economic status, healthier personality test scores)". Lessing made use of a variety of tests, including a story completion test and an incomplete sentence exercise, all of which provided support for the Le Shan hypothesis. However, on her "Events Test" in which subjects were required to list 10 future events together with their age when that event occurred, no support for Le Shan was forthcoming, although Lessing makes reference to other studies

(e.g. Graves, 1962; Vincent, 1965) which did produce significant differences on this type of test.

In the same year (1968), Cohen et al., investigated the language of the "hard-core poor", explicitly linking their hard-core poor with Bernstein's lower social class group. They, too, found differences in time perception between the perceptions of their sample and "those commonly held" (Cohen et al., p.20, not further defined). They claim that, to the poor, "time is a series of discrete moments ... rather than a continuum". It is, however, unclear as to how the language samples in this study were obtained (in spite of the reported use of "sophisticated knowledgeable insiders"). Furthermore, no non-poor language samples seem to have been used in order to effect comparisons. Thus, on several counts, this study is methodologically weak.

Pollack et al., (1969), in a time estimation task using hospital employees, found that the lower class subjects made significantly larger errors in estimation on all tests apart from one which involved counting aloud for one minute. They concluded that "the personal clock of the lower class subjects appears to run faster than does that of the upper class subject". Using younger subjects (aged between 17 and 19 years) O'Rand and Ellis (1974) also found social class differences, in that their trainees at Tongue Point Job Centre, "job corpsmen" (lower class) demonstrated significantly more constricted "perspectives on the future" than did their middle class sample of university students. Job corpsmen tended to restrict their future horizons to the immediate future - a finding echoed by Winnubst (1974) in an overview of time perspective studies. A "social time perspective scale" was used by O'Rand and Ellis which involved subjects reporting 7 things that were going to happen to them in the future. Once again, the study leaves something to be desired methodologically in that the samples do not appear to

be matched on educational experience or I.Q. However, within the group of university freshman a link between academic performance and "extensity score" was illustrated, with high academic performance being associated with a slightly higher extensity score on the time perspective scale than for moderate or low academic performers.

A similar technique to that used by both O'Rand and Ellis and Lessing (her Events Test) was employed by Lamm et al., (1976) on a sample of 14 to 16 year old German school students, half of whom attended an "Hauptschule" (L-C sample) and half an "Höhere Schule" (MC sample). Subjects listed their hopes and fears which were then categoried into private or public sector concerns. It was again found that the middle class sample manifested a more extended future orientation. Moreover, this greater extension applied to both private and public events. The lower class sample's main focus was the private sector.

Thus, a variety of studies seem to give support to Le Shan's earlier finding of social class differences in time perspectives.

However, a critical review by Allen (1970) of both the Le Shan experiment and some of the studies following in its wake casts some doubt on the widely accepted view that "the poor are firmly anchored in the present", and are possessed of a short time perspective. Two major criticisms of Le Shan's experiment emerge. Firstly, the statistical treatment of data is called into question by Greene and Roberts, (1961), and secondly the difference in length of stories written by middle class and working class subjects is seen as significant by Kendall and Sibley, (1970). (We shall return to this study shortly).

Furthermore, other studies, using a variety of measures of time, come up with contradictory results. Reichart (1966,

cited in Allen, 1970), using a fantasy story-telling technique found no difference in time perspective between the two classes. A similar result was obtained by Judson & Tuttle (1966), using multiple choice questions and a story completion test as measures of time perspective and holding I.Q. constant.

In a study which compared various methods of measurement, Perlman (1976), carried out ten tests of temporal orientation and extension, each using different measurement techniques. These measures fell into one of three main categories, namely, graphic representation (the respondent draws marks on a line or intersecting circles to represent past, present and future), assignment of temporal zones and dates to milestones or important life events, and assignment of temporal zones and dates to statements regarding moods, activities, plans and expectations. The analyses strongly suggested that graphic techniques are either invalid as indices of temporal experience or that they are tapping different attributes from other tests, as graphical tests did not correlate with any of the verbal measures. Furthermore, Perlman found no general consistent effects with regard to socioeconomic status.

Thus, empirically at least, the question as to whether or not social class differences in time perspectives exists is still an open one.

8.2 Verb Tenses and Time Orientation

In an attempt to clarify the relationship between time orientation and the use of verb tenses, Kendall and Sibley (1970) analysed stories told by male and female 6th graders (11.8 - 13 years of age). It was hypothesised that middle class children would make greater use of the future tense in telling stories than lower class children. Verb tenses were scored as past, present and future, and the time span of

stories was also calculated. The results of the timespan calculations at first seemed to support Le Shan's study in that a third of middle class stories spanned periods of between a day and a week compared with lower class stories which were limited to periods of less than a day. However, middle class stories were longer than lower class ones and, therefore, likely to cover longer periods of time, and when Kendall and Sibley re-analysed the data making class comparisons that were matched for length, the differences disappeared. Thus, as Kendall and Sibley concluded, observed differences in time span of stories may be an artifact of story length. The analysis of verb tenses indicated that middle class subjects used fewer future verbs than lower class subjects, thus their hypothesis was not supported in this instance either.

8.3 The Present Study

The present study hopes to avoid the twin pitfalls of inappropriate statistical analysis and differing story lengths. Using a variant of the Important Events Test, it attempts to supply information concerning the time orientation of the two social class groups. It, furthermore, should provide data of a projective nature as suggested by Perlman (1976) who argues that not only can the definition of important life events by subjects be related to more quantitative temporal variables, but also that content analysis of such data may constitute an interesting and potentially fruitful avenue of research. The study also entails an analysis of time reference (verb tenses and adverbials) made in the conversations which feature in chapters 3-6.

8.3.1 Predictions

Both Bernstein and Le Shan lead us to predict that the working class group will tend to give emphasis to the present and very immediate future, whilst the middle class group will show a

longer time span of anticipation. Bernstein also predicts differences between the two social classes in terms of value systems.

8.3.2 Procedure

A total of 80 first year boys from two Edinburgh comprehenisve schools (40 middle class, 40 working class) took part in this experiment. Their average age was 12.7 years and all were of average ability as measured by Raven's Progressive Matrices and the junior form of the Mill Hill Vocabulary test. Subjects had previously been assigned to the social classes on the basis of their Father's occupation and the rateable value of their dwelling. (Details of method to be found in Chapter 2).

The boys, who were organised into small groups, were given the following instructions.

> "Imagine that you are very old gentlemen of 70 or 80 or 90 or whatever you think is old. I want you to write down the 10 most important events in your life. You can include things that have already happened to you and things that you think will happen to you. All right? Any questions?"

As the boys were finishing they were further asked to write down (in brackets after each event) the age they were at the time of that event. Each list was, therefore, 10 items long, thus avoiding the methodological pitfall of differing lengths of contribution. Furthermore, the period of time covered by each subject was easily calculated from the ages supplied by the boys.

8.3.3 Analysis

Two main types of analysis were carried out. Firstly, class differences in time perspective were investigated using the lists generated above. Secondly, the group conversations were re-analysed in terms of time reference (past, present and future, as well as use of generics and hypotheticals). This second analysis provides information concerning effects of the affiliation and popularity of topic variables on time reference as well as social class information. Finally, the content of the lists was inspected and observations noted together with ideas for further analysis and investigation.

8.4 Results

8.4.1 Analyses of listed events in terms of time

(a) Calculation of Time Span

For the purpose of this analysis "time span" is taken to be the difference between the greatest and least age listed, irrespective of order of listing, e.g.

Starting school (5)
Received O.B.E. (83)
Time span = 83 - 5 = 78 years.

This may be seen as a crude measure of Bernstein's "time span of anticipation" (Bernstein, 1958).

The time span of events listed by each boy was calculated as described above. A small proportion of boys gave ages in excess of 100 years - 8 boys in total (7 from the middle class group) who quoted ages as follows :

MC	90000003.9	("Captured by Martians & Living in an air-filled dome")
	1000	("Living to be 100 years old")
	600	("Robot wife falls to bits again")
	250	("Dying")
	200	("Becoming the oldest person in the world")
	110	("Getting a motor bike")
	107	("Dying")
WC	100000	("Dying")

For the purpose of calculation of time spans these answers were counted as 100, and as 99+ for the purpose of graphing.

The mean time span for the middle class group was found to be 59.36 years (S.D = 3.07), and that for the working class group 44.73 years (S.D. = 3.03). A Mann Whitney U test was carried out, with the hypothesised difference (middle class being greater than working class) being found to be highly significant ($z = 3.42$, $p = 0.0003$).

The above results give support to the prediction that middle class children will tend to show a longer time span of anticipation than working class children.

B) Calculation of "future span"

This calculation involves a middle class - working class comparison of the mean number of events occurring at or above the age of 14 years, (that is to say, future events). This calculation gives an alternative and possibly more sensitive measure of time span of anticipation. Again it has been hypothesised that the middle class boys will list a greater number of events from the future than will their working class peers.

The mean number of future events per middle class boy (≥ 14 years) was found to be 8.17 (S.D. = 5.74) as compared with 6.05 (S.D. = 3.60) for the working class boys. Once again a Mann Whitney U test showed this difference to be significant ($z = 2.57$ $p = 0.0051$).

In this analysis the greater preoccupation of the middle class boys with the future is clearly shown, and these results taken together with those from analysis (A) (above) give some support to Bernstein's claims about the differences in time perspective associated with the different social classes.

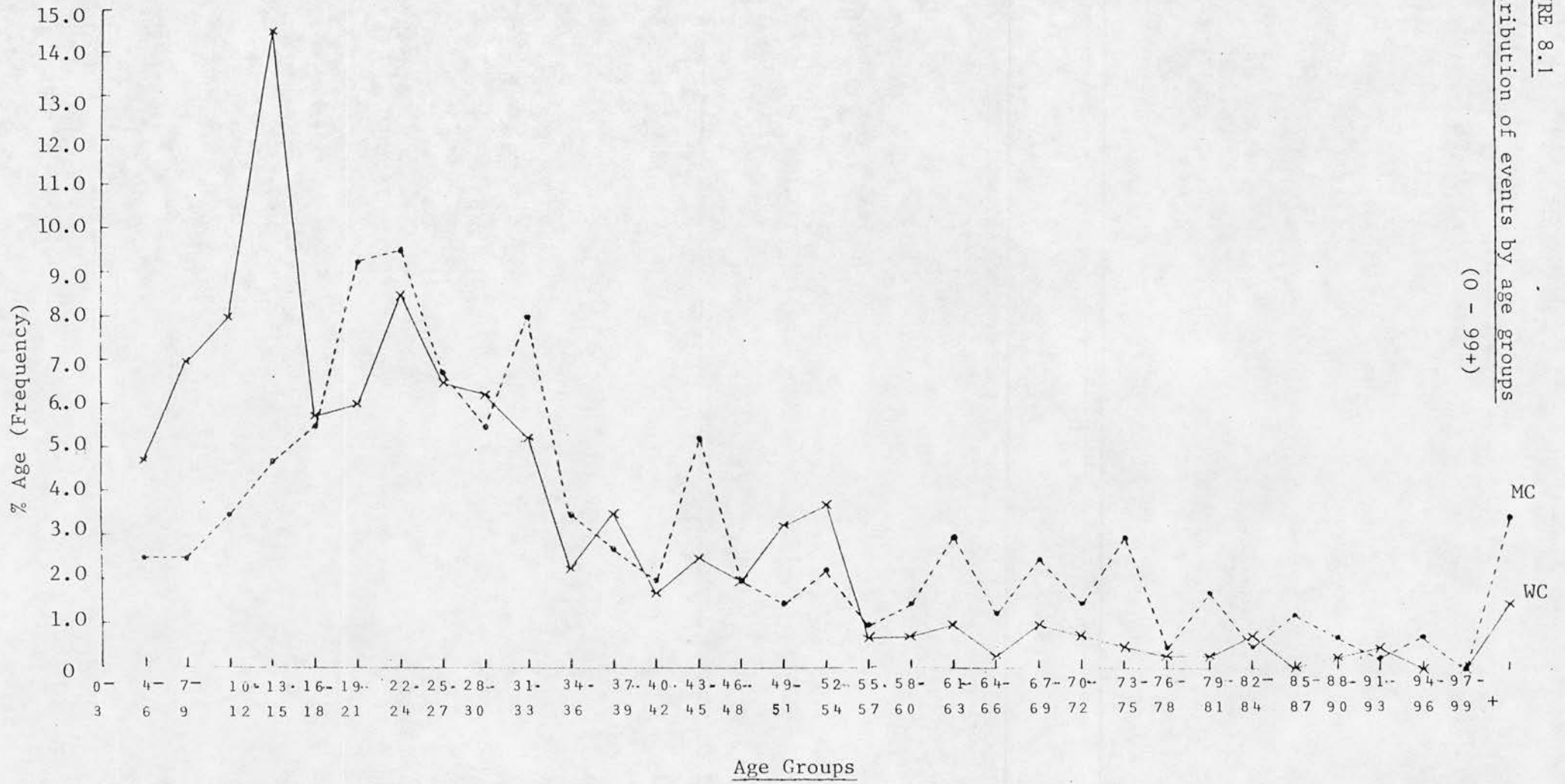
Figure 8.1 shows the distribution of events over age groups in the range 0 to 99+ years. Ages are grouped in 3 year blocks (0 to 3, 4 to 6, 7 to 9 etc.) and the number of events in each age block is shown as a percentage of the total number of events listed. Middle class and working class distributions show a striking difference in the frequency of events listed between the ages of 0 and about 20 years, with a cross over point occurring around 13-15 years. Before the cross over there are many more working class events listed, whilst after this point we see a brief middle class maximum followed by an equalling off. Between the ages of 54 and 81 years the middle class boys list a larger percentage of events than the working class boys. Thereafter no great difference is apparent until the "upsurge" at 99+ which is more marked in the middle class group. This is largely due to the greater number of longevity fantasy events listed by the middle class boys. (See 8.4.1(a))

8.4.2 Discussion

Thus, the results of the two analyses described so far appear to provide support for Bernstein's predictions concerning social class differences in time perspective, though whether the explanation of the differing time spans measured may be seen as simply a matter of differing "temporal orientations"

FIGURE 8.1

Distribution of events by age groups (0 - 99+)



as Bernstein (1958) suggests, or as being more concerned with differing social expectations (or indeed with some other difference altogether) is by no means clear or decided. Inspection of the content of the lists along the lines suggested by Perlman (1976) may help clarify this issue, and the influence that fantasy may exert on the results cannot be ignored.

Whilst there appears to be no difference between working class and middle class boys in the mean overall Daydreaming score as measured by the Rogers' Personality Inventory (See Chapter 7, p.224), attention to the content of the lists and the nature of events listed suggests that there may be class differences present. In the lists, fantasy is most clearly seen in relation to extreme longevity, and here there is a marked class difference (17.5% middle class boys making reference to such events compared with 2.5% of working class boys). This observation causes one to question the attitudes of the boys towards the task, but even if the differences may be attributed to differing attitudes to the task above, these differences between the classes persist, though any attempted explanation must of necessity be rather different from that proposed by Bernstein.

8.4.3 Time Reference in Conversation

Time references (verb tenses and adverbials) in all conversations were classified according to whether they were past, present or future. Note was also taken of occurrences of the generic (e.g. "Phil Bennett's magic") and of hypotheticals (e.g. "If England 've got all the money they could buy all the good players"). For each conversation, all time references were totalled, and percentages of the five categories calculated.

Results

Mean percentages and standard deviations for the five categories are shown in Table 8.1. Popular and unpopular conversations were treated separately. It is clear that, irrespective of any possible class differences in time reference, there are marked differences due to popularity of topic. Popular topic conversations are characterised by a greater use of past time reference, whilst unpopular topic conversations more often feature future time reference. Use of the present is reasonably stable across conditions at around 25.75% of all time references. These popularity differences in time reference are more clearly illustrated in Figure 8.2. High and low affiliation groups are also graphed separately, but the pattern of past-present-future reference is remarkably similar across all affiliation and class conditions. Figure 8.3 illustrates the marked similarity between social classes with regard to time reference. In all cases (except middle class high affiliation groups) there is a tendency for time reference to be future oriented in unpopular conversations and oriented towards the past in popular conversations.

The use of hypotheticals also appears to be related to topic of conversation in that a greater use of such forms occurs in unpopular conversations across all conditions. Conversely, there is a slight tendency for generics to characterise popular conversations rather than unpopular ones, though this difference is not marked except in the case of middle class low affiliation popular conversations.

8.4.4 Discussion

The analysis of time reference in conversations carried out above does not seem to support the Le Shan hypothesis. As with Kendall and Sibley's (1970) sample, our middle class boys

Table 8.1

Time References in Popular and Unpopular Conversations:
(S.D.'s in brackets)

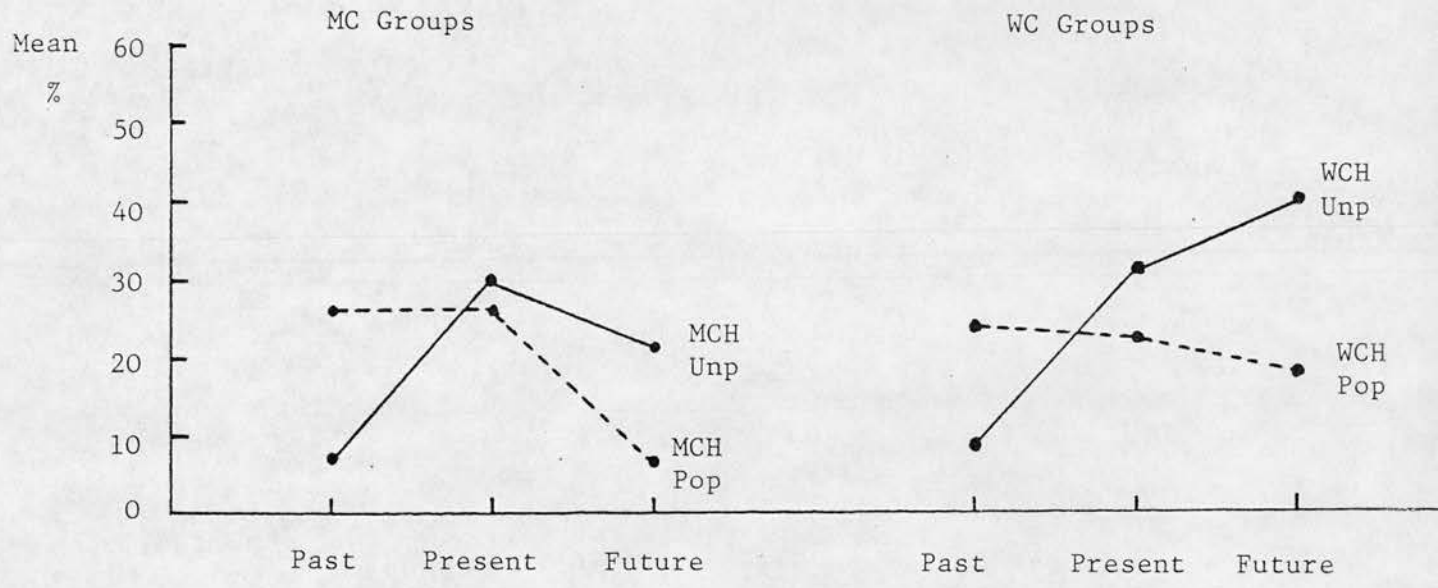
Means and Standard Deviations

	Past	Present	Future	Generic	Hypotheticals
Popular					
MCH	26.34	26.95	6.71	39.76	0.24
	(12.74)	(16.91)	(10.05)	(23.52)	(0.52)
MCL	22.01	16.24	4.44	53.73	3.58
	(17.77)	(9.35)	(3.07)	(20.43)	(4.38)
WCH	24.98	23.72	18.67	31.10	1.53
	(12.25)	(8.26)	(12.29)	(21.02)	(1.68)
WCL	3.80	26.77	12.28	21.97	0.99
	(19.14)	(16.47)	(11.96)	(16.38)	(2.02)
Unpopular					
MCH	7.37	30.89	21.58	34.17	5.99
	(7.12)	(8.63)	(11.77)	(14.90)	(4.13)
MCL	5.39	27.43	34.43	22.80	9.95
	(4.46)	(10.71)	(14.08)	(7.46)	(6.09)
WCH	9.02	30.31	40.57	12.04	8.07
	(9.47)	(9.62)	(12.76)	(9.43)	(5.59)
WCL	5.79	23.68	40.27	26.70	3.56
	(9.90)	(4.85)	(15.14)	(9.24)	(4.95)

FIGURE 8.2

Popularity Differences in Time Reference (Past-Present-Future)

Hi Affiliation Groups



Lo Affiliation Groups

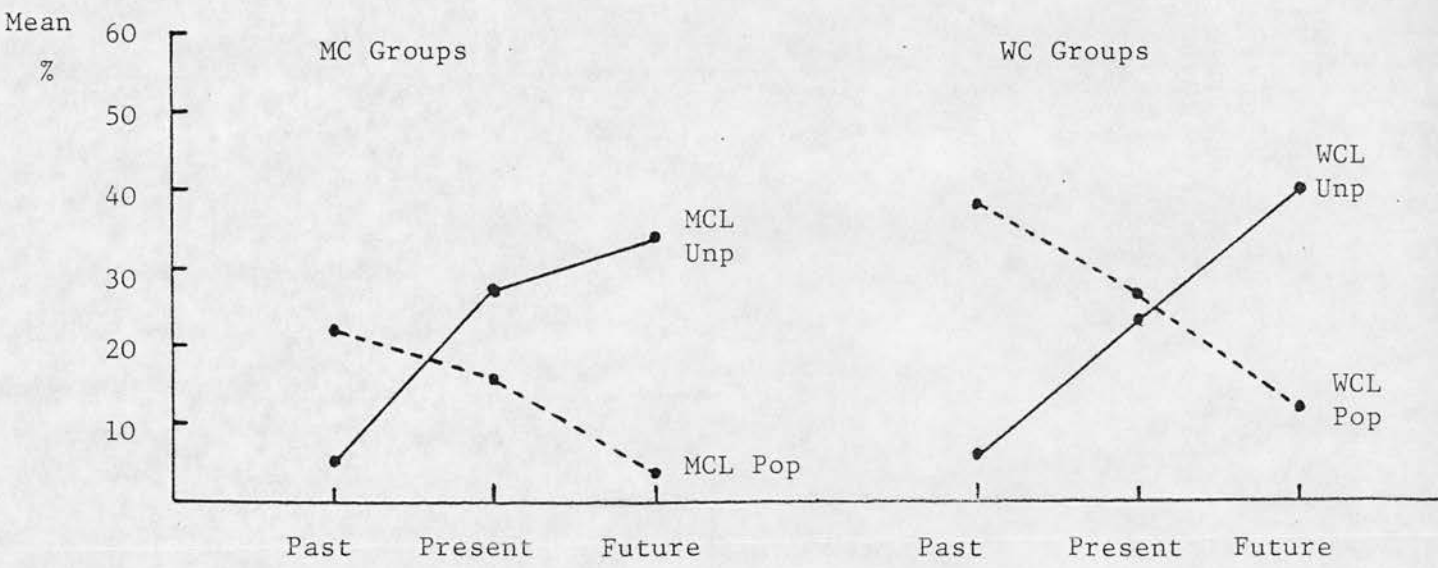
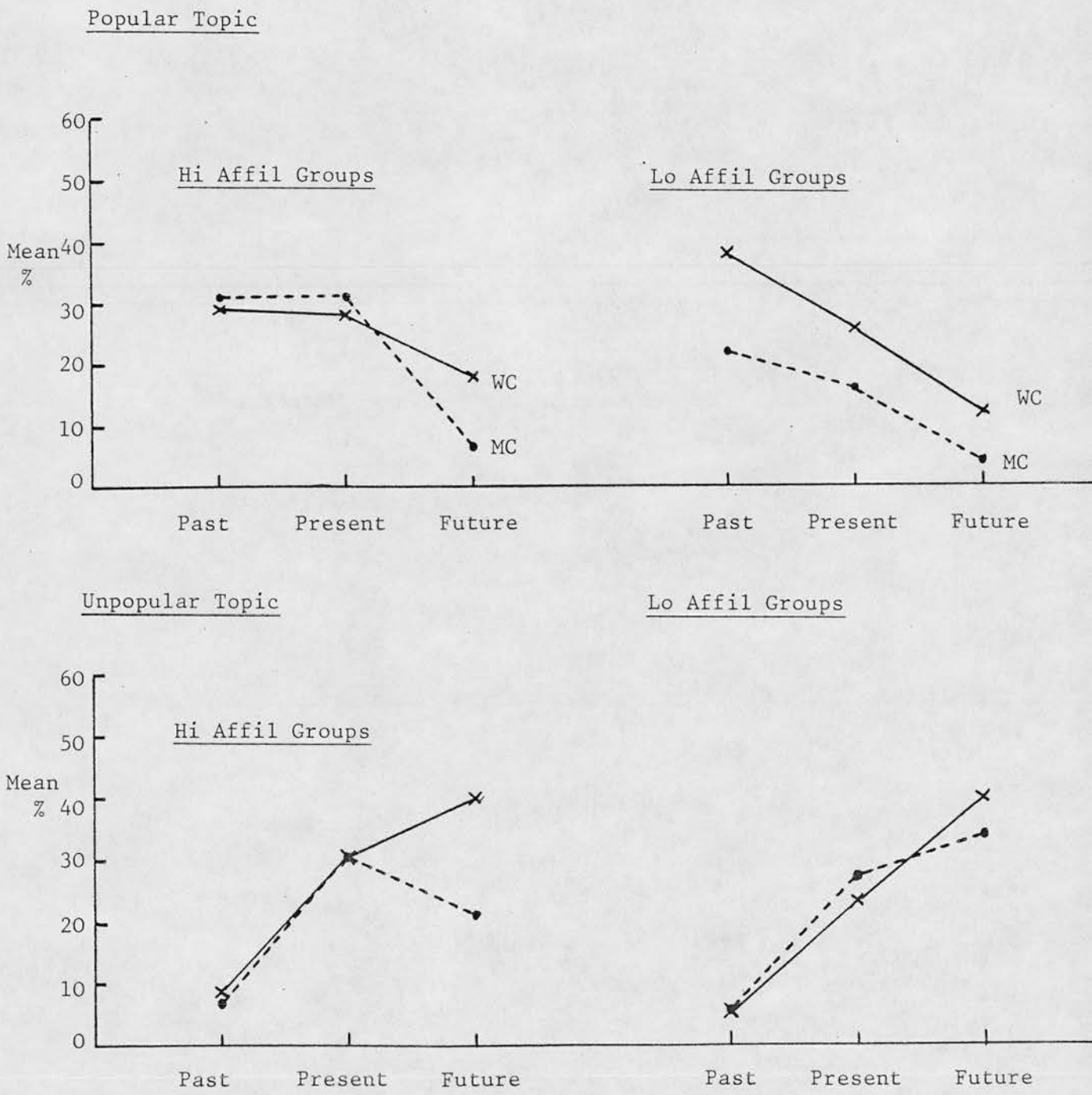


FIGURE 8.2 (Contd.)

FIGURE 8.3

Social Class Differences in Time Reference (Past-Present-Future)



used slightly fewer future time references than working class subjects. (See Figure 8.3) The topic differences in time reference found in the present study may be accounted for by the nature of the two topics of conversation. "Independence for Scotland" is a future occurrence, and thus, may be expected to give rise to speculation and future time references. "Sport", on the other hand could equally well refer to past, present and future, the boys in our case putting greater emphasis on the past and present.

8.5 General Discussion

Thus, taking two separate measures of time perspective, we encounter the same inconsistency found in previous studies (reviewed earlier in the chapter). The events test of the present study provides some support for Bernstein and the Le Shan hypothesis (although Lessing's 1968 study of this type failed to do so), whilst the analysis of time reference in conversations (in spite of their differing lengths) appears to provide no evidence suggesting the importance of the class variable.

Cottle et al, (1969) argue that the perception of time in younger adolescents is as much determined by their own wishes as by anything else. The wishes of the Edinburgh boys are seen very clearly as being influential in the events test of the present study. The content of the lists is the focus of the next section, but, as will discussed later, while boys from both class groups indulge in fantasy when compiling their lists, there are class differences in frequency of occurrence of sporting and science and technology events, the working class boys more often including sporting events and accomplishments and the middle class boys preferring the science and technology events. It is arguable that these differences will affect the measured time span, in that necessarily one reaches the peak of a sporting career at an early age.

While not directly relevant to the social class time perspectives debate, Teahan's (1958) study may be of some interest. He attempted an empirical test of his hypothesis that high achievers will have "a more predominant and extensive future time perspective", (Teahan, 1958). Three measures of time perspective were used, a story completion task, a TAT story and a recording by subjects of 25 things they had talked or thought about during the two weeks prior to the experiment. Subjects were 8th grade boys (approximately 13 years old). Teahan's results supported his hypothesis, although the groups of high and low achievers were not matched for I.Q. It must be remembered that very different patterns of achievement were found in the two social class groups in the Edinburgh sample.

A similar finding to that of Teahan was reported by Epley and Ricks (1963), who predicted that subjects with long perspective spans in TAT stories are likely to be more responsible, and hence more successful academically than those with short time spans. Their results, too, supported their hypothesis, but they add a note of caution, warning that

> "This result cannot be generalised to groups in which there is more intellectual variablility than in this selected sample. Uniformity of intelligence tends to cancel out achievement difference due to scholastic aptitude, and probably increases achievement differences related to foresight. The result does show that foresight correlates with achievement in a sample in which intelligence is uniformly high".
>
> (Epley & Ricks, 1963, p.53)

By this token, achievement differences in the Edinburgh sample, which is also relatively uniform with respect to intelligence may also be more related to Epley and Ricks "foresight" or "prospective fantasy" (an activity claimed by Epley and Ricks to prepare the subject for mastery of future situations) than in any simple way to socioeconomic class differences.

8.6 The Content of the Lists

Lists were next examined for content of events rather than for timing in an attempt to shed some light on the boy's value systems.

8.6.1 War, Science and Technology, and Sport

On inspection of the lists a large number of events seemed to fall into one of the three categories above, namely, war events, science and technology events, and sporting events. Examples of events assigned by the author to the 3 categories may be found in Table 8.2.

As is shown in Table 8.3, war events made up 4.9% of middle class events listed, and 4.15% of those listed by the working class boys. Events relating to science and technology made up 7.55% of events listed by middle class boys, but played no part in working class lists, whilst sporting events made up 21.95% of working class events compared with only 8.37% of those listed by the middle class group. The social class differences in choices of science and technology and sporting events is thus clearly demonstrated.

It is interesting to note that 60.47% of the working class sample listed at least one sporting event compared with only 42% of the middle class sample, and that 44.19% of the working class boys mentioned soccer compared with only 16% of the

Table 8.2

Examples of war, science and technology, and sporting events

10 Examples of WAR events

Getting a shell in the stomach during the war.
Being caught by Germans in World War 3.
Capturing a German Officer.
Living through an air raid.
Getting tortured.
Being caught by the SS.
World War 3 starting.
Getting the Victoria Cross.
Remembering the Japs attacking Pearl Harbour.
Becoming a pilot in the war.

10 Examples of SCIENCE AND TECHNOLOGY events

Discovering a new chemical.
Becoming paralysed and getting bionic legs.
A rocket landing on a planet like Earth.
All disease being wiped out.
Men travel to Mars and back.
Robot wife falling apart.
Electric cars becoming popular.
Being the first pensioner to live in the great underwater city, Aquadrome.
Living on the Moon.
Stamping out rabies.

10 Examples of SPORTING events

Being signed up for a Scottish Premier League Club.
Winning the European Cup.
Having a testimonial.
Playing for Celtic.
Winning swimming championships.
Scoring a goal.
Diving into water from the high board.
Seeing Scotland win the World Cup.
Climbing the Matterhorn.
Playing rugby.

Table 8.3

War, Science and Technology, and Sporting Events as Percentages of all events listed in the 2 social class groups

	Middle Class % ages	Working Class % ages
War	4.9	4.15
Science & Tech.	7.55	Nil
Sport	8.37	21.95

middle class sample. A feature common to both the science and technology and to the sporting categories is a large element of fantasy as has already been noted, but the two socio-economic status groups seem to gain daydreaming satisfaction from these two completely different areas. Such a finding would probably come as no surprise to the sociologist Taylor, who in his article "Soccer Consciousness & Soccer Hooliganism", (1971) argues that soccer is the central proletarian sport. (Certainly soccer featured most frequently in working class sports lists). Soccer, Taylor claims, was until recently a participatory democracy, embodying certain values such as masculinity (toughness, stamina and autonomy) active and collective participation and victory. (p.141). Such values, argues Taylor, derive from the working class experience of industrial work.

It may be mentioned here that an independent rater judged 9.8% of the middle class events to be events of "collective participation", (those involving a large groups of people) as compared with 19% of the working class events. (See Table 8.4 for examples). Remaining events, with a few exceptions (4.9% of middle class and 0.73% of working class events which could be termed "National Events") were individual in nature (events involving the subject himself alone, and those such as "getting married", "becoming a father", which involve a close relative as well).

Table 8.4

Examples of events of collective participation
Individual events and National events

Events of Collective Participation

Play for Hibs.
Playing for badminton squad.
First day at secondary school.
Going on a school cruise.
Playing football for a boy's club.
Going to parties.
Playing in a pipe band.
Going to a football match.
Going to pubs.
Going to Butlins.

Individual Events

Getting caught lighting a fire.
Getting stitches in my leg.
Getting married.
Having a car crash.
Getting a job.
Passing driving test.
Being nominated for President.
Eating a Bingo bar.
Writing a book on marine biology.
Getting the OBE.

National Events

Coronation of ER II.
The change of the century.
All disease wiped out.
Scientists find life on Jupiter.
Being ruled by a President instead of King or Queen.
First men step on Mars.
World War III starting.
Ibrox disaster.
Atomic bomb dropped on Queen.
Rabies is stamped out.

8.6.2 A Classification of Events

The compilation of a list of unique events, taken from all the event lists was carried out ("duplicate" events were not included) furnishing a total of 218 events. These events were then classified by the author into 12 superordinate value categories listed in Table 8.5 namely, according to whether they indicate academic achievement, acquisitiveness (relating to property and goods), altruism, disaster, fame, family values, job achievement, acquistion of money, practical achievement, recreation, scientific achievement, sporting achievement or travel. It is to be noted that some events were assigned to more than one category. (For example it is possible to classify "Winning at the Olympics" as both "sporting achievement" and "fame").

Percentages of all 800 events falling into each category were calculated, and ordered lists of values for the 2 groups compiled (See Table 8.6). "Fame", it may be observed tops the list for both groups. In second position of importance to the middle class group is "Academic Achievement" and "Acquisitiveness" with equal proportions, and for the working class group "Sporting achievement" closely followed by "Recreation".

The lower sections of the two lists (Table 8.6) are very similar with only the relatively low positioning of "scientific achievement" on the working class list differentiating between them from about rank 8 onwards.

While the proportions of events assigned by the 2 groups to categories such as sporting achievement, disaster, scientific achievement, recreation and academic achievement in particular appear to differ, no significant differences were found using

Table 8.5

Superordinate Value Categories

	Middle Class %	Working Class %
Academic achievement	15.5	7.35
Acquisitiveness (property and goods)	12.5	10.29
Altruism	4.17	2.94
Disaster	-	1.47
Fame	22.22	22.06
Family	2.78	4.41
Job Achievement	4.17	2.94
Money (acquisition of)	4.17	2.94
Practical achievement	1.39	1.47
Recreation	11.11	16.18
Scientific achievement	8.33	2.94
Sporting achievement	11.11	17.65
Travel	5.56	8.82

Table 8.6

Ordered Lists of Values for Middle Class and Working Class Groups

Middle Class Values		% age
1.	Fame	22.22
2.5	Academic achievement)	12.5
	Acquisitiveness)	12.5
4.5	Recreation)	11.11
	Sporting achievement)	11.11
6.	Scientific achievement	8.33
7.	Travel	5.56
9.	Altruism)	4.17
	Job achievement)	4.17
	Money)	4.17
11.	Family	2.78
12.	Practical achievement	1.39

Working Class Values		
1.	Fame	22.06
2.	Sporting achievement	17.65
3.	Recreation	16.18
4.	Acquisitiveness	10.29
5.	Travel	8.82
6.	Academic achievement	7.35
7.	Family	4.41
9.5	Job achievement)	2.94
	Altruism)	2.94
	Money)	2.94
	Scientific achievement)	2.94
12.5	Disaster)	1.47
	Practical achievement)	1.47

Reeb's nomographs for the significance of the difference between percentages (Reeb, 1972).[1]

It is to be noted that in this sample all boys rated "leisure" categories highly, though the working class group rated them higher than their middle class contemporaries. A reduced importance assigned to academic (and to some extent scientific) achievement may be interpreted as realistic adaptation to a changing pattern of British life and to a growing disenchantment with science and technology. It is of some interest that both groups of boys did not attach great importance to job achievement (rated eight on the working class list and nine on the middle class).

What seems to emerge from this part of the study is that apart from the hint of a difference between the 2 groups with regard to the rank ordering of categories, such as academic achievement and family (the latter giving some support to Bernstein's claims concerning greater working class emphasis to the family) there is a large degree of agreement between the classes as to what is regarded as being desirable and of value.

(1) This test enables the calculation of a t value to be made. It makes use of two nomographs, one involving the N values (in this case $N_1 = N_2 = 400$ = the total number of events involved in each social class group) (ω), and the other using the two percentages being compared (ν). The two values obtained thus are inserted in the equation $t = \omega\nu$. t values required for significance at various degrees of freedom are looked up in the usual way.

8.7 Summary

Thus, it appears that the results of the different analyses carried out and reported above point to dramatically different relationships between time perspectives and the social class variable. On the one hand the Events Test found a strong and marked relationship between these variables with middle class subjects displaying a greater future time perspective than working class subjects, while the investigation of time reference in language found no such a relationship. The preliminary content analysis did not point to any major differences between the two classes either. It would appear, then, that social class differences in some measures of time perspective exist, but that these differences are not primarily differences of language.

CONCLUSION

The present study has focussed on the deficit hypothesis both in terms of psychological variables and as a proposed explanation for working class underachievement. While it is not clear whether Bernstein would have at any time subscribed to the deficit view, none the less his name and work are still associated with the notion that working class language is in some way deficient, and likely to affect cognitive processes adversely. The research here reported aimed to investigate a number of areas where deficit theory would point to working class difficulties. Throughout, alternative explanations to that of blanket deficit have been sought.

9.1 Summary of Results

The pronoun study (Chapter 3) based on research carried out by Bernstein (1962(b)) suggested that familiarity with either people or topic of conversations was a greater influence on pronoun usage than is membership of a particular socioeconomic class. Only in the case of total numbers of personal pronouns used, and the incidence of the first personal pronoun "I", were any influences of social class evident. It was found that working class high affiliation groups in particular used larger number of personal pronouns than other groups, whilst middle class groups tended to use the pronoun "I" more frequently than working class groups. Both of these findings bear some relation to the results of Bernstein's 1962(b) study.

Chapter 4 ("Conversation Structure") which focussed on the "profiles" of total pronoun usage over the conversations suggested that only in the case of middle class low affiliation groups was a change in pronoun use marked, in that pronoun usage had increased by the end of the first recorded conversation. Again, a slight involvement of the social class

variable hinted at, this time in interaction with the affiliation variable. This affiliation-class interaction is partly supported by the regression analysis. No such trend was noticeable in second conversations. A further investigation involving pronoun usage was reported in Chapter 5 (Reference in conversation). Exophoric and Anaphoric use of referents was explored and no clear support was given for the working class communication deficit hypothesis. As in Chapter 3, the affiliation and popularity variables appear to account for more of the variance attributable to the independent variables in the study than did the class variable on its own. A marginal working class "advantage" with regard to asking questions was found and a further study of questions in the more informal setting of a conversation recommended.

Chapter 6 (Functions of language) investigated differences in the use and functions of language, using a form of Robinson's (1972) taxonomy of language functions. Again the affiliation-class interaction appeared frequently in the regression analysis suggesting the importance of this variable particularly for the "social" and "cognitive" groups of functions. The popularity of topic variable emerged as being more important for the "Personal" function group. Social class differences were observed with regard to forms of address, however, and as might have been predicted, the more frequent occurrence of proper or nicknames seems to be associated with high affiliation of group numbers. There is more widespread use of the differentiated form of address by working class boys in all conditions, though this is more marked in popular topic conversations. A slight influence of the class variable was also noted for Function 6 (Regulation of Self), though this function of language was very infrequently encountered.

As far as personal and social development are concerned, no significant class differences were found (Chapter 7,

Personality Study), though the middle class average falls just outside Rogers' "norms" hinting at a slightly lesser degree of social adjustment in this group. The working class group showed a slightly greater degree of conflict with regard to family relations, though in no case was any difference found to be statistically significant.

Chapter 8 (Time Perspectives) reported the results of two kinds of analysis. First of all, an events test measuring time perspective was carried out. The results of this test suggested a marked relationship between time perspective and social class (with middle class boys having a longer future time perspective than working class boys). The second analysis was to time references made in earlier recorded conversations. This analysis found no relationship between the language of time reference and social class. Thus, social class differences in time perspective appear to exist, but these are not primarily differences of language.

9.2 Comparisons

9.2.1 A comparison of Bernstein's 1962 results with those of the present study

Reservations as to the methodology of Bernstein's 1962(a) and (b) research have been amply stated in the introduction to this study (1.9.1). Let us consider, however, correspondences which exist between Bernstein's findings and those of the present study. Bernstein found that his middle class groups used a smaller proportion of total personal pronoun than did the working class groups. The results of the present study also suggest that the class variable (together with the affiliation variable) makes a significant contribution to attributable variance in the total number of personal pronouns analysis, and that, similarly, middle class groups in general use slightly fewer personal pronouns overall. Bernstein found

that the middle class groups used a higher proportion of the pronoun "I" to total personal pronouns than working class groups. The present analysis also suggests that the class variable (this time together with the popularity variable) makes a significant contribution to attributable variance, and that middle class subjects similarly use a higher proportion of this pronoun than working class subjects. Bernstein's analyses also found social class differences with regard to frequency of use of "you" and "they" (working class used a higher proportion than middle class). The present study finds no such a class difference, and suggests that the P-A interaction is of major importance in explaining the variance. Egocentric sequences were found by Bernstein to be more a feature of middle class language than of working class, while working class subjects made more frequent use of sociocentric sequences. The present study suggests that the topic variable is more influential as a determiner of egocentric sequence use, and that any class differences are in the opposite direction to that found by Bernstein. A similar finding applies to the use of sociocentric sequences by boys in the present study, though with the P-A variable as being more important in this case. The present study also looked at the frequency of use of the pronoun "we".

Thus, the present study finds support for Bernstein's claims about social class differences with respect to total personal pronouns and use of "I", but concludes that the other differences which he found are more suitably explained by the factors of popularity of the topic and degree of affiliation of the boys, factors which were confounded with social class in his study.

9.2.2 Social class differences in other studies

There are, however, other studies which claim to provide support for Bernstein's theory of codes. Lawton's (1964)

replication of Bernstein's 1962 study, for example, claimed to find significant class differences on a number of measures including egocentric and sociocentric sequences and personal pronoun use. Similarly, Hawkins (1969) found that significantly more working class children than middle class used items of exophoric reference rather than parts of speech associated with the noun. Turner (1973) also produced experimental results concerning the language of control that were felt to be in line with the work of Bernstein.

The results of the present study also point to social class differences in a very few instances. As stated in 9.1, the pronoun study (Chapter 3) suggested that the social class variable makes a significant contribution to variance for total personal pronoun use, and for the personal pronoun "I" in particular. Not until Chapter 8 (Time Perspectives) is any other clear cut social class effect found. The difference in total pronoun use is difficult to interpret on its own. While Bernstein has proposed that excessive use of pronouns is imprecise and confusing to the listener, it can also be argued that appropriate use of pronouns leads to conciseness of language, "oils" the conversation extremely efficiently, and conveys information that a repeated noun would not do. In Chapter 5, a more detailed study of pronoun use was carried out and this failed to support simple social class differences. Popularity of topic proved to be more important, and there was no evidence that working class children were relying inappropriately on pronouns at the expense of clarity of communication. The greater middle class use of the pronoun "I" was also subjected to further study in Chapter 7 (Personality Study). In this case, no significant class differences in the degree of personal adjustment were found, which might have been an expected consequence of the differential use of "I", as has been suggested by Bernstein and others. In the present study only the events test reported in Chapter 8 provides clear cut evidence of social class differences.

9.3 Towards an explanation

9.3.1 Individual vs. group performance

In the time perspectives study of the present research, it may be recalled, the boys worked on their own rather than as members of a group as they did during the conversations. It is conceivable that, if a working class deficit exists, it may be associated more with activities in which the individual functions alone rather than with activities where the support of a group is available. The use of the personal pronoun "I" may also be seen to possess some of the "alone" characteristics, in that the user of the first personal pronoun singular is speaking as an individual rather than as a member of a group. Might it be, then, that some degree of working class deficit exists when the individual is compelled to act alone?(1) We need, therefore, to look more closely at the role of the group in the present conversation studies.

It may be that groups provide varying degrees of support to individuals comprising them, and so we could expect that the affiliation variable would play an important role in explaining results. Conversely, it may be that the nature of the interlocutor is not important, and that simple audience effects obtain. If the affiliation variable appears as important in the present study, then this strongly suggests that effects observed are not simple audience effects. The affiliation variable is found to be of major importance in explaining the attributable variance in the conversation study (Chapter 4), and as being a contributor to total personal pronoun use (Chapter 3). It also appears as being of minor importance in the study of reference (Chapter 5). Since affiliation is important in explaining differences in language

(1) This effect, however, is less likely to be a speech effect, in that speech does not normally exist without the presence of an audience.

use we would expect that a situation in which the child is talking to an unfamiliar adult would correspond to our low affiliation conditions. This would affect the nature of the speech recorded.

However, if this were to explain a reported working class deficit we would have to claim that the affiliation factor operates differently for the working class in comparison with middle class, that is to say, that WCL groups perform less well than WCH groups in situations where middle class groups are not affected by the affiliation factor. The A-C interactions are described in more detail in 9.7 and it is clear that there is very little to suggest that WCL groups are particularly adversely affected.

When we look at previous studies it again becomes clear that although some have tested children on their own, or with an adult experimenter, and others have tested them in groups, we do not find that class differences are consistently reported in cases of lower affiliation. Studies by Lawton (1963,1964), Hawkins (1969) and Turner (1973) have been cited above as providing support for Bernstein's theory of codes. While both the Hawkins and Turner studies involved an adult experimenter interviewing children individuallly, this was clearly not the case for the Lawton replication study which involved group discussions of capital punishment (though the experimenter played an active part in the proceedings and is unlikely to have been categorised by the boys as a close friend). Furthermore, studies which did <u>not</u> find social class differences have also involved a solo task for the child. For example, Robinson's (1965) study of formal letter writing produced no class differences in performance, and in Francis's (1974) study where again no differences were found, each child was given a task in a room alone. In this latter case, however, the experimenter had previously visited classrooms, and rehearsed using the taperecorder with the children. Thus,

a simple explanation of performance differences in terms of individual vs. group participation of the type suggested above, appears not to suffice.

9.3.2 Familiarity of group members

Clearly more information is required concerning the familiarity of group members one with another and of individuals with the adult experimenter. Certainly Bernstein did not control for familiarity in his original 1962 study, and thus, differences found by him may be more a function of the affiliation variable than of social class. Lawton does not give details concerning the familiarity of his discussion group members one with another. Similarly, we do not have detailed information of this nature from other studies.

9.4 Validity of the results of the present study

It may be argued that the results of the present study are artificial in that the two social class groups are not "truly" either working class or middle class. Certainly all boys participating in the present study attended the same two schools, working class alongside middle class, in a way that is not common in the sampling techniques of this type of research. However, both the marked social class differences in the results of the time perspectives experiment, and the different patterns of attainment noted in the follow-up study of the sample (See Chapter 2) suggest that the class groupings do correspond to social class groups encountered in other studies. Furthermore, we cannot rule out the possibility that differences found in previous studies, largely sampling as they do from different schools, may be attributable in some degree at least to differences in these schools or colleges rather than social class differences. The results of the present study are not open to this particular criticism.

9.5 Class effects and affiliation effects

We must now explore in greater detail the relationship between the present findings concerning affiliation and popularity differences in language use and previously reported class effects. Can it be that what has previously been identified as "working class language" appears as "high affiliation language" in the present study, and "middle class language " as "low affiliation langauge"? For this to explain previously reported differences we would have to assume either that, though not controlling for affiliation, these researchers happened to find high affiliation working class groups and low affiliation middle class groups (which is unlikely if the sampling was random). Alternatively it may be that working class groups are more likely to try to treat a random group of interlocutors as a high affiliation group while middle class groups treat such a selection of interlocutors as a low affiliation group.

The conversation study (Chapter 4) gives some support to this argument, in that the first conversation profile of low affiliation groups differs for the two classes, the working class groups establishing and maintaining a constant relatively high level of pronoun use throughout the conversation (a high affiliation characteristic) while the middle class groups begin by a low rate of use of pronouns, and only by the last quarter of conversations reach the same level of usage as their working class peers. If this relationship holds, then it may be that studies do reveal class effects, but that these effects say more about the social attitudes of the participants than about their language capacities. This argument, of course, bears some relation to Bernstein's later postulations concerning family role and family control systems (Bernstein, 1971). In attempting a more precise formulation of the connection between social class and linguistic codes, he argues that children learn

different roles by virtue of their family's class position in society, and that a restricted code will arise where the form of the social relation is based upon closely shared identification, an extensive range of shared expectations and upon a range of common assumptions. In this case, he reasons, social solidarity is created at the cost of the verbal elaboration of individual experience. In studies of social class language differences it may be that the working class subjects attempt to recreate their "social solidarity" in the presence of middle class experimenters, and are similarly likely to form instant high affiliation groups. If this is the case then we might predict that a comparison of affiliation profiles and class profiles of speech characteristics will reveal a correspondence between the two, with high affiliation characteristics being restricted code characteristics, and low affiliation characteristics those of an elaborated code variety.

From the present study, characteristics of high affiliation conversations included a greater tendency to use personal pronouns than in low affiliation conversations, more examples of the manipulation of both positive and negative affect, and a greater use of differentiated forms of address (all restricted code characteristics). At the same time, high affiliation conversations were also characterised by a greater use of the inquiry function of language, and by a greater overall range of language uses (more characteristic of the elaborated code). Low affiliation conversations, moreover, were characterised by a greater use of the reference and instruction functions of language, and by more examples of persuasion by reasoning than encountered in high affiliation conversations (all characteristics more easily classified as belonging to an elaborated code variety). Thus, it appears that we cannot accept that class effects are simply and directly due to differing social attitudes in the two classes.

9.6 Class effects and popularity effects

Another possibility is that there are parallel profiles between popular/unpopular conversations and previously reported class differences. From the results of the present investigation it appears that there is no simple relationship linking popularity of topic and social class differences. Both popular and unpopular conversations are characterised by restricted and elaborated code characteristics. For example, popular conversations tend to be characterised by a greater use of "I", a greater use of the inquiry and instruction functions of language, and be a greater range of uses of language than unpopular conversations (all elaborated code characteristics) but also by a greater use of differential forms of address (a restricted code characteristic). Unpopular conversations are characterised by both greater use of the pronoun "we" than popular conversations (a restricted code characteristic) and by a greater use of egocentric sequences (an elaborated code characteristic). Thus, we cannot accept that class effects are directly parallel to topic effects.(1)

9.7 The A-C Interaction

While the present study provides examples of affiliation effects, it also points to an A-C interaction. Thus, it appears that the affiliation variable does not have the same effect in the two classes. Looking at examples from Chapter 6 (where it may be recalled, A-C effects were most frequently encountered), we see that such an interaction occurs in popular topic uses of function 11 (The Reference Function).

(1) Furthermore, in the present study, general effects of popularity of topic and specific effects of the particular unpopular topic chosen (Independence for Scotland) may be confounded. Certain unpopular topic characteristics, e.g. the use of "we", may be more a feature of the devolution debate than of any unpopular conversation.

In high affiliation groups the working class subjects make greater use of this function than middle class subjects, but for low affiliation groups the position is reversed, Such an intraction can hardly be described as an example of working class deficit. Interactions also occur in unpopular conversations with regard to the use of function 4 (encounter regulation). It is this function that helps to maintain the flow of conversation. In low affiliation groups, working class subjects make more use of this function than middle class subjects, there being no significant difference between the use made of this function by the two high affiliation groups. The greater WCL use may hint at a higher degree of conversational proficiency on their part compared with the MCL groups. However, this function also refers to the ending of encounters, and the WCL groups could, thus, be more ready to explicitly close conversations when they cease to be satisfying. (The shorter length of working class unpopular conversations tends to support this view). Again, we have a different effect of the affiliation variable in the two classes, but no evidence of working class deficit. In the use of function 5 (Performatives) the A-C interaction is again found in unpopular conversations. There are marginal differences in performance again only between low affiliation groups, with the MCL subjects making slightly greater use of function 5 than WCL groups. MCL subjects make marginally more promises and/or bets than their working class peers. This, again, is not convincing evidence of working class deficit. Therefore, the results of the present research suggest that there are class differences in the effects of interaction patterns on speech, but that these are not simple. The shape of the A-C interaction varies for different language measures, and so the effect of this interaction is subtle. It is, therefore not possible to explain the results of the previous studies in terms of the effect of this variable without knowing more about the nature of the affiliation of the groups, but it is important for future studies to look at this area in greater detail.

9.8 Conclusion

The present study has investigated social class language differences, and attempted to elucidate possible psychological correlates of any such differences. It has also sought out alternative explanations for linguistic differences that have been suggested by previous studies. The present research found that variation in language structure and use due to the socioeconomic class variable is very slight, though in a few limited instances clearly present. Personality differences which are often implicitly linked with such linguistic differences do not, however, appear to exist generally. The only marked social class difference noted was that in one type of test middle class boys apparently have a longer time span than their working class peers.

Nonetheless, however slight the social class differences in language and personality variables, the achievements of these boys are clearly related to the socioeconomic class to which they belong. Educational failure once again appears to be "a fact" (Halsey, 1980 cited by Stone, 1981), though, on the evidence provided by the present study, it cannot be argued that "educational failure is primarily linguistic failure" (Doughty and Thornton in Trudgill, 1975). It may be that, as Chermak (1976) argues, the myth of a linguistic deficit has diverted attention away from the real deficits, namely the deficits of the educational system which is supposed to function to serve all children. Furthermore, in addition to possible changes in the educational system, the righting of more glaring inequalities in terms of material circumstances, health and power is also necessary, but cannot be readily achieved.

REFERENCES

Allen, V.L. (Ed.) (1970)
Psychological factors in poverty. Markham Publishing Co., Chicago.

Alvy, K.T. (1973)
The development of listener adapted communications in grade-school children from different social-class backgrounds. Genetic Psychology Monographs, 87 (1) 33-104.

Anderson, H.H. and Anderson, G.L. (1954)
Social development. In Carmichael (Ed.) (1954)

Argyle, M. (1969)
Social Interaction. Methuen & Co Ltd. London

Austin, J.L. (1962)
How to do things with words. Oxford University Press. London

Bandura, A. and Walters, R.H. (1959)
Adolescent agression. Ronald. New York.

Baratz, S.S. and Baratz, J.C. (1970)
Early childhood intervention: the social science base of institutional racism. In Cashdan & Gudgeon (Eds.)

Barnes, D. & Todd, F. (1977)
Communication and learning in small groups. R.K.P. London.

Bates, E. (1978)
Functionalism and the biology of language. Papers and reports on child language development. Stanford child Language Forum.

Battle, E.S. & Rotter, J.B. (1972)
Children's feelings of personal control as related to social class and ethnic group. In Bronfenbrenner (Ed.) 1972.

Bedrosian, J.L. & Prutting, C.A. (1978)
Communicative performance of mentally retarded adults in four conversational settings.
Journal of Speech and Hearing Research 21 (1) 79-95.

Bereiter, C. & Engelmann, S. (1966)
Teaching disadvantaged children in the pre-school. Prentice Hall - Englewood Cliffs, New Jersey.

Bernstein, B. (1959)
A public language: some sociological implications of a linguistic form. British Journal of Sociology, 10 311-26.

Bernstein, B. (1960)
Language and social class. British Journal of Sociology, 11 271-6.

Bernstein, B. (1962a)
Linguistic codes, hesitation phenomena and intelligence. Language and Speech, 5, 31-46.

Bernstein, B. (1962b)
Social class, linguistic codes and grammatical elements. Language and Speech, 5, 221-40.

Bernstein, B. (1965)
A socio-linguistic approach to social learning. Penguin survey of the social sciences. Gould (Ed.) Penguin.

Bernstein, B. (1975)
Class, codes and control. Vol. 3. R.K.P. London and Boston.

Bernstein, B. (1970)
Education cannot compensate for society. New Society, 26th February. 344-7.

Bernstein, B. (1971a)
A socio-linguistic approach to socialization: with some reference to educability. Reprinted in Bernstein (1974).

Bernstein, B. (1971b)
Social class, language and socialization. Reprinted in Bernstein (1974).

Bernstein, B. (1973)
A brief account of the theory of codes. In Lee (1973).

Bernstein, B. (1973) (Ed.)
Class, codes and control, Vol. 2. R.K.P. London.

Bernstein, B. (1974)
Class, codes and control, Vol. 1 (2nd Ed.), R.K.P. London.

Black, D. et al (1980)
Inequalities in Health. DHSS Report.

Blank, M. & Solomon, F. (1972)
How shall the disadvantaged child be taught? In Cashdan & Grugeon (Eds.)

Blishen, B.R. (1958)
The construction and use of an occupational class scale. The Canadian Journal of Economic & Political Science, 24, 519-525.

Blos, P. (1962)
On adolescence. Collier-Macmillan. London.

Blos, P. (1967)
The second individuation process of adolescence. Psychoanalytic study of the child, 22, 162-86.

Blurton-Jones, N. (1972) (Ed.)
Ethological studies of child behaviour. Cambridge University Press, London.

Bottomore, T.B. (1965)
Classes in modern society. George Allen and Unwin Ltd., London.

Brandis, W. and Henderson, D. (1970)
Social class, language and communication. R.K.P. London.

Braunwald, S.R. (1980)
Egocentric speech reconsidered. Paper presented at Annual Meeting of the Interdisciplinary International Conference, Los Angeles, February 1-2.

Bronfenbrenner, U. (1972) (Ed.)
Influences on human development. The Dryden Press Inc., Hindsdale, Illinois.

Buck, M.R. & Austin, H.R. (1971)
Factors related to school achievement in an economically disadvantaged group. Child Development, 42, 1813-1826.

Burchinal, L., Gardner, B. & Hawkes (1958)
Children's personality adjustment and the socio-economic status of their families. The Journal of Genetic Psychology, 92, 149-159.

Caramazza, A., Grober, E. & Garvey, C. (1977)
Comprehension of anaphoric pronouns. J.V.L.V.B., 16, 601-609.

Carmichael, L. (Ed.) (1954)
Handbook of child development (2nd Edn.). John Wiley & Sons Inc., New York.

Carswell, E.A. & Rommetveit, R. (Eds.) (1971)
Social contexts of messages. Academic Press, London and New York.

Cashdan, A. and Esland, G. (1972)
Introduction to Section VI Language deprivation and educational disadvantage? In Cashdan & Grugeon (Eds.) (1972).

Cashdan, A. and Grugeon, E. (Eds.) (1972)
Language in Education. A source book. The Open University Press/R.K.P. London.

Census (England) (1970)
Census classification of occupations. (England). H.M.S.O.

Chermak, G.D. (1976)
Review of issues in Black dialect; a proposed two-way bilingual educational approach; and considerations for the congenitally deaf child. Psychology in the schools, 13 (1) 101-110.

Clark, H.H. & Clark, E.V. (1977)
Psychology and language. An introduction to psycholinguists. Harcourt Brace Jovanovich. New York.

Clark, H.H. and Sengul, C.J. (1979)
In search of references for nouns and pronouns. Memory and Cognition, 7 (1), 35-41.

Cockram, L. and Beloff, H. (1978)
Rehearsing to be adults. National Youth Bureau. Leicester.

Cohen, R., Fraenkel, G. & Brewer, J. (1968)
The language of the hard-core poor: implications for culture conflict. Sociological quarterly, 9, 19-28.

Cohen, S.A. (1968)
Socially disadvantaged Americans: Slow learners. Slow learning child: The Australian Journal on the Education of Backward Children, 14 (3), 153-160.

Cohen, S. (Ed.) (1971)
Images of Deviance. Penguin Books, Harmondsworth.

Coleman, J.C. (1974)
Relationships in adolescence. R.K.P. London.

Cooper, H., Baron, R. & Lowe, C. (1975)
The importance of race and social class information in the formation of expectancies about academic performance. Journal of Educational Psychology, 67 (2), 312-319.

Coote, A. (1980)
Death to the working class. New Statesman, 12 September. 8-9.

Cottle, T.J., Howard, P. & Pleck, J. (1969)
Adolescent perceptions of time: the effect of age, sex and social class. Journal of Personality, 37 (4), 636-650.

Coulthard, M. (1969)
A discussion of restricted and elaborated codes. In Cashdan & Grugeon (Eds.)

Daněs, F. (1974) (Ed.)
Papers on functional sentence perspective. Academia Prague Mouton. The Hague & Paris.

Davie, R., Butler, N., Goldstein, H. (1972)
From birth to seven (National Child Development Study). Longman. London.

Delis, D. & Slater, A.S. (1977)
Toward a functional theory of reduction transformations. Cognition, 5, 119-132.

Dittmar, N. (1976)
Sociolinguistics. Edward Arnold, London.

Dore, J. (1975)
Holophrases, speech acts and language universals. Journal of child language, 2, 21-40.

Dore, J. (1977)
Children's illocutionary acts. In Freedle (Ed.) 1977

Douglas-Cowie, E. (1978)
Linguistic code-switching in a Northern Irish village: social interaction and social ambition. In Trudgill (Ed.) 1978.

Duncan, S.D. (1972)
Some signals and rules for taking speaking turns in conversation. Journal of Personality and Social Psychology, 23, 283-292.

Edwards, J.R. (1979)
Language and disadvantage. Edward Arnold, London.

Epley, D. and Ricks, D.R. (1963)
Hindsight and Foresight in the TAT. Journal of Projective Techniques, 27, 51-59.

Erikson, E. (1968, Paperback, 1971)
Identity, youth and crisis. Faber & Faber, London.

Ervin-Tripp, S. & Miller, W. (1977)
Early discourse: some questions about questions. In Interaction, Conversation and the development of language. Lewis & Rosenblum (Eds.)

Feshbach, S. and Adelman, H. (1974)
Remediation of learning problems among the disadvantaged. Journal of Educational Psychology, 66 (1), 16-28.

Field, F. (1974)
Unequal Britain. Arrow Books Ltd., Tiptree, Essex.

Firbas, J. (1974)
Some aspects of the Czechoslovak approach to problems of functional sentence perspective. In Papers on F.S.P. Daneš (Ed.)

Fowler, F.G. & Fowler, H.W. (1930)
The King's English. Clarendon Press. Oxford.

Francis, H. (1974)
Social class, reference and context. Language and Speech, 17, 193-198.

Freedle, R.Q. (Ed.) (1977)
Discourse production and comprehension. Discourse processes: Advances in research and theory, Vol.1. Ablex Publishing Co., Norwood, New Jersey.

Fries, C.C. (1940)
American English grammar. Appleton-Century-Crofts Inc., New York and London.

Garvey, C., Caramazza, A., and Yates, J. (1974-75)
Factors influencing assignment of pronoun antecedents. Cognition, 3, 227-243.

Garvey, C., and Dickstein, E. (1972)
Levels of analysis and social class differences in language. Language and speech, 15, 375-384.

Giglioli, P.P. (Ed.) (1972)
Language and social context. Penguin. Harmondsworth.

Glucksberg, S., and Kraus, R.M. (1967)
What do people say after they have learned how to talk? Studies of the development of referential communication. Merrill-Palmer Quarterly, 13, 309-316.

Goldman-Eisler, F. (1958)
Speech analysis and mental processes. Language and Speech, 1.

Goldman-Eisler, F. (1961)
Hesitation and information in speech. In "Information Theory". Cherry (Ed.) Butterworth. Referred to in Bernstein (1962a)

Goldthorpe, J.H., Lockwood, D., Bechhofer, F. and Platt, J. (1969)
The affluent worker in the class structure. Cambridge University Press.

Goodenough, F.L. (1938)
The use of pronouns by young children: a note on the development of self-awareness.
The Journal of Genetic Psychology, 52, 333-346.

Green, A.W. (1946)
The middle class male child and neurosis. American Sociological Review, 11, 31-41.

Greene, J.E. and Roberts, A.H. (1961)
Time orientation and social class: a correction. Journal of abnormal and social psychology, 62, 141.

Grober, E.H., Beardsley, W., Caramazza, A. (1978)
Parallel function strategy in pronoun assignment. Cognition, 6, 117-133.

Guardo, C.J. & Bohan, J.B. (1971)
Development of a sense of self identity in children. Child Development, 42, 1909-1921.

Guilford, J.P. and Fruchter, B. (1978)
Fundamental statistics in Psychology and Education. (6th Edn. International Student Edition). McGraw-Hill, Kogakusha Ltd., Tokyo.

Hall, W.S. and Guthrie, L.F. (1979)
Cultural and situational variation in language function and use: Methods and procedures for research. Technical Report No. 148. Center for the study of Reading. University of Illinois.

Halle, M., Bresnan, J., & Miller, G.A. (Eds.) (1978)
Linguistic theory and psychological reality. MIT Press. Cambridge, Mass. and London.

Halliday, M.A.K. (1973)
Explorations in the functions of language. Edward Arnold, London.

Halliday, M.A.K. (1974)
The place of 'Functional Sentence Perspective' in the system of linguistic description. In Papers on FSP, Daneš (Ed.)

Halliday, M.A.K. (1975)
Learning how to mean: Explorations in the development of language. Edward Arnold, London.

Harrison, D.S. and Trabasso, T. (Eds.) (1976)
Black English. A seminar. Lawrence Erlbaum Associations. Hillsdale, New Jersey.

Hasan, R. (1968)
Grammatical cohesion in spoken and written English. Part one. Longmans, London and Harlow.

Haviland, S.E., & Clark, H.H. (1974)
What's new? Acquiring new information as a process in comprehension. Journal of verbal learning and verbal behaviour, 13, 512-521.

Hawkins, P. (1969)
Social class, the nominal group and reference. Language and speech, 12, (2), 125-135.

Henderson, D. (1970)
Contextual specificity, discretion and cognitive socialization with special reference to language. Sociology, 4, (3) 311-38.

Henry, P. (1971)
On processing of message references in contexts. In Carswell and Rommetveit (Eds.)

Heinig, R.B. (1977)
Creative drama as an aid in children's development of communicative strategies. Paper presented at annual meeting of the National Conference on Language, Arts in the Elementary School, Phoenix.

Hess, R.D., and Shipman, V.C. (1972)
Early experiences and the socialization of cognitive modes in children. In Cashdan & Grugeon (Eds.)

Higgins, E.T. (1976)
Social class differences in verbal communicative accuracy: A question of "Which question?" Psychological Bulletin, 83 (4) 695-714.

Hill, J.P. & Palmquist, W.J. (1978)
Social cognition and social relations in early adolescence. Int. Journal of Behavioral Development, 1 (1), 1-36.

Hirst, W. & Brill, G.A. (1980)
Contextual aspects of pronoun assignment. Journal of Verbal Learning and Verbal Behaviour, 19, 168-175.

Holman, R. (1978)
Poverty. Explanations of social deprivation. Martin Robertson & Co Ltd., London.

Holt, J. (1969)
How children fail. Pelican Books, Harmondsworth.

Hornby, P.A. (1974)
Surface structure and presupposition. Journal of Verbal Leanring and Verbal Behaviour, 13, 530-538.

Houston, S.A. (1970)
A re-examination of some assumptions about the language of the disadvantaged child. Child Development, 41, 947-963.

Ironsmith, M. and Whitehurst, G.J. (1978)
How children learn to listen: The effects of modeling feedback styles on children's performance in referential communication. Developmental Psychology, 14 (5) 546-554.

Jenkinson, T.K. and Weymouth, A.G. (1976)
Pronominal usage, cohesion and explicitness in working-class speech: towards an evaluatuve technique.
Language and Speech, 19, (2), 101-116.

Judson, A.J. and Tuttle, C.E. (1966)
Time perspective and social class.
Perceptual and Motor Skills, 23 1074.

Kail, M. & Leveille, M. (1977)
Comprehension of pronominal reference with children and adults. Annee Psychologique, 77 (1) 79-94.

Kandel, D. and Lesser, G.S. (1972)
Parent adolescent relationships and adolescent independence in the United States and Denmark. In Bronfenbrenner, U. (Ed.) (1972).

Karabenick, J.D. & Miller, S.A. (1977)
The effects of age, sex and listener feedback on grade school children's referential communication. Child Development, 48, 678-683.

Katz, P. and Zigler, E. (1967)
Self-image disparity: a developmental approach. Journal of Personality and Social Psychology, 5, 186-195.

Keddie, N. (Ed.) (1973)
Tinker, tailor.... The myth of cultural deprivation. Penguin, Harmondsworth.

Kendall, M.B. & Sibley, R.F. (1970)
Social class differences in time orientation: artifact? The Journal of Social Psychology, 82, 187-191.

Kieras, D.E. (1978)
Good and bad structure in simple paragraphs. Effects on apparent theme, reading time and recall. J.V.L.V.B., 17, 13-28.

Klausner, S.Z. (1953)
Social class and self-concept. The Journal of Social Psychology, 38, 201-205.

Klein, J. (1965)
Samples from English cultures, Vol. 1. Three preliminary studies. Aspects of adult life in England. R.K.P. London.

Kohn, M.L. (1972)
Social class and parent-child relationships: an interpretation. In Bronfenbrenner, U. (Ed.) (1972)

Kohn, M. & Cohen, J. (1975)
Emotional impairment and achievement deficit in disadvatnaged children - fact or myth? Genetic Psychology Monographs, 92, 57-78.

Krauss, R.M. & Glucksberg, S. (1969)
The development of communication: competence as a function of age. Child Development, 40, 255-266.

Labov, W. (1969)
The logic of non-standard English in Giglioli (Ed.)

Labov, W. (1972)
Sociolinguistic Patterns. Basil Blackwell, Oxford.

Lamm, H., Schmidt, R.W. & Trommsdorff, G. (1976)
Sex and social class as determinants of future orientation (time perspective) in adolescents. Journal of Personality and Social Psychology, 34 (3), 317-326.

Lawton, D. (1963)
Social class differences in language development: a study of some samples of written work. Language and Speech, 6 (3), 120.

Lawton, D. (1964)
Social class differences in group discussions. Language and Speech, 7 (3), 183-204.

Lawton, D. (1968)
Social class, language and eduction. R.K.P. London.

Lee, V. (1973)
Social relationships and language. E262, Block 3, Open University Press, Bletchley.

Lesgold, A.M. (1972)
Pronominalization: A device for unifying sentences in memory. J.V.L.V.B., 11, 316-323.

LeShan, L.. (1952)
Time orientation and social class. Journal of Abnormal Social Psychology, 47, 589-592.

Lessing, E.E. (1968)
Demographic, developmental and personality correlates on length of future time persective (FTP).
Journal of Personality, 36 (2), 183-201.

Lewis, M. & Rosenblum, L.A. (1977) (Eds.)
Interaction, conversation and the development of language. Wiley, New York.

Lewis, O. (1966)
The culture of poverty. Scientific American, 215 (4), 19-25.

Lorr, M. & Manning, T.T. (1978)
Measurement of ego development by sentence completion and personality tests. Journal of Clinical Psychology, 34, (2), 354-360.

Luria, A.R. (1976)
Cognitive development. Harvard University Press. Cambridge, Mass. & London.

MacWhinney, B. and Bates, E. (1978)
Sentential devices for conveying givenness and newness: A cross-cultural developmental study. J.V.L.V.B., 17, 539-558.

Macaulay, R.K.S. & Trevelyan, G.D. (1973)
Language, education and employment in Glasgow. (SSRC Report).

Maratsos, M.P. (1973)
The effects of stress on the understanding of pronominal co-reference in children. Journal of Psycholinguistic Research, 2 (1), 1-8.

Marcuse, H. (1968)
One-dimentional Man: Studies of advanced industrial society. R.K.P. London (First published 1964).

Marshall, J.C. (1970)
Can humans talk? In Morton (Ed.). Biological and social factors in psycholinguistics.

Mohr, D.M. (1978)
Development of attributes of personal identity. Developmental Psychology, 14, (4), 427-428.

Morgan, J., O'Neill, C. & Harré, R. (1979)
Nicknames: Their origins and social consequences. R.K.P. London.

Morton, J. (Ed.) (1970)
Biological and social factors in psycholinguistics. University of Illinois Press.

Moscovici, S. (1967)
Communication processes and the properties of language. Advances in experimental social psychology, 3, 225-70.

Moss, M.H. (1973)
Deprivation and disadvantage? Language and learning. Block 8, The Open University Press. Bletchley.

Mussen, P.H. (Ed.) (1970)
Carmichael's Manual of Child Psychology. (Edn. 3, Vol. 1) John Wiley & Sons Inc., New York.

Newsom Report (1963)
Half our future. Report of the Minister of Education's Central Advisory Council. H.M.S.O.

O'Rand, A. & Ellis, R.A. (1974)
Social class and social time perspective. Social Forces, 53, (1), 53-62.

Oppenheimer, L. (1978)
The development of the processing of social perspectives: A cognitive model. Int. Journal of Behavioural Development, 1 (2), 149-71.

Osgood, C.E. (1971)
Where do sentences come from? In Semantics. Steinberg & Jakobovitz (Eds.)

Patterson, C.J., Massad, C.M. & Cosgrove, J.M. (1978)
Children's referential communiation: components of plans for effective listening. Developmental Psychology, 14 (4) 401-406.

Patterson, C.J. & Massad, C.M. (1980)
Facilitating referential communication among children: the listener as teacher.
Journal of Experimental Child Psychology, 29, 357-370.

Peterson, C.L., Danner, F.W. & Flavell, J.H. (1972)
Developmental changes in children's response to three indications of communicative failure. Child Development, 43, 1463-1468.

Piaget, J. (1970)
Piaget's theory. In Mussen (Ed.) (1970)

Pinnell, G.S. (1977)
Functions of language in educational environments. Paper presented at Annual Conference on Language and Reading. Chicago, June 20-22.

Perlman, L. (1976)
Temporal extension and orientation: a methodological study. Perceptual and Motor Skills, 43, 775-785.

Pollack, I.W., Ochberg, F.M. & Meyer, E. (1969)
Social class and the subjective sense of time. Archives of general psychiatry, 21 (1), 1-14.

Powell, M. (1955)
Age and sex differences in degree of conflict within certain areas of psychological adjustment. Psychological Monographs, 69, (387).

Pozner, J. & Saltz, E. (1972)
Social-class, conditional communication and egocentric speech. Tech. Report No. 2. Center for the study of cognitive processes. Wayne State University, Detroit.

Pride, J.B. (1971)
The social meaning of language. Oxford University Press, London.

Raph, J. (1967)
Language and speech deficits in culturally disadvantaged children. Implications for the clinician. Journal of Speech and Hearing Disorders, 32, 203-14.

Raven, J.C. (1960)
Guide to the standard progressive matrices. H.K. Lewis & Co Ltd., London.

Ravenette, A.T. (1963)
Intelligence, personality and social class - an investigation into the pattern of intelligence and personality in working class secondary school children. Unpub. PhD Thesis, University of London.

Reeb, M. (1972)
Nomographs for the significance of the difference between percentages. Educational and Psychological Measurement, 32, 715-723.

Reigel, K.F. & Freedle, R. (1976)
What does it take to be bilingual or bidialectical? In Harrison & Trabasso (Eds.)

Robinson, W.P. (1965)
The elaborated code in working class language. Language and Speech, 8, 243-252.

Robinson, W.P. (1972)
Language and social behaviour. Penguin, Harmondsworth.

Robinson, W.P. (1975)
The dialogue of 'deficit' and 'difference' in language proficiency. International Journal of Psycholinguistics 3 27-40

Rogers, C.R. (1961)
Personal adjustment inventory. Association Press, New York.

Rogers, S. (1976)
The language of children and adolescents and the language of schooling. In 'They don't speak our language'. (Ed.) Rogers.

Rogers, S. (1976) (Ed.)
They don't speak out language. Edward Arnold, London.

Rommetveit, R. (1971)
Words, contexts and verbal message transmission. In Carswell & Rommetveit (Eds.)

Rosenthal, R. & Jacobson, L. (1968)
Pygmalion in the classroom. Holt, Rinehard & Winston, New York.

Rotter, J.B. (1954)
Social learning and clinical psychology. Prentice Hall. Englewood Cliffs, N.J.

Rushton, J. and Young, G. (1975)
Context and complexity in working class language. Language and Speech, 18, 366-387.

Rutherford, R. (1976)
Talk about pop. In 'They don't speak our language'. Rogers (Ed.)

Rutter, M., Maughan, B., Mortimore, C., Ouston, J., Smith, A. (1979)
Fifteen thousand hours. Secondary schools and their effects on children. Open Books Publishing Ltd. Shepton Mall et.

Schatzman, L. & Strauss, A. (1955)
Social class and mode of communication. The American Journal of Sociology, LX (4), 329-338.

Schegloff, E.A. & Sacks, H. (1973)
Opening up closings. Semiotics, 8, 289-327.

Sewell, W.H. (1961)
Social class and childhood personality. Sociometry, 24, 340-356.

Sewell, W.H. & Haller, A.O. (1956)
Social status and the personality adjustment of the child. Sociometry, 19, 114-125.

Sledd, T. (1972)
Doublespeak: dialectology in the service of big brother. College English, 439-56.

Smith, P.K. and Connolly, K. (1972).
Patterns of play and social interaction in pre-school children. In Blurton-Jones (Ed.) 1972.

Smith, W.P. & Bordonaro, F. (1975)
Self esteem and satisfaction as affected by unexpected social status placement. Sociometry, 38, (2), 223-246.

Snedecor, G.W. and Cochran, W.G. (1967)
Statistical Methods (6th Edn.). Iowa State U.P.

Steinberg, D.D. & Jakobovitz, L.A. (1971)
Semantics. C.U.P. Cambridge.

Stenning, K. (1978)
Anaphora as an approach to pragmatics in Halle et al (Eds.)
Stone, M. (1981) The education of the black child in Britain. Fontana, Collins, Glasgow
Stringer, D. (1973)
Language variation in English E262 Block 1. The Open University Press, Bletchley.

Symonds, P.M. & Daringer, H.F. (1930)
Studies in the learning of English expression. No. IV. Sentence structure, 32, 50-64.

Taylor, I.R. (1971)
Soccer consciousness and soccer hooliganism. In Cohen (Ed.) 1971.

Teahan, J.E. (1958)
Future time perspective, optimism, and academic achievement. Journal of abnormal and social psychology, 57, 379-80.

Thomson, J. (1977)
Social class labelling in the application of Bernstein's theory of the codes to the identification of linguistic advantage and disadvantage in 5 year old children. Educational Review, 29 (4), 273-83.

Townsend, P. (1979)
Poverty in the United Kingdom: a survey of household resources and standards of living. Penguin. Harmondsworth.

Trudgill, P. (1975)
Accent, dialect and the school. Edward Arnold, London.

Trudgill, P. (Ed.) (1978)
Sociolinguistic patterns in British English. Edward Arnold, London.

Tulkin, S.R. (1972)
An analysis of the concept of cultural deprivation. Developmental Psychology, 6 (2), 326-339.

Turner, G.J. (1973)
Social class and children's language of control at age five and age seven. In Bernstein (Ed.) 1973.

Valentine, C.A. (1968)
Culture and Poverty. Critique and counter proposals. The University of Chicago Press.

Van Dijk, T.A. (1977)
Text and context: explorations in the semantics and pragmatics of discourse. Longman, New York and London.

Wax, M.L., Wax, R.H. & Dumont, R.V. (1964)
Formal education in an American Indian Community. Monograph No. 1 Society for the study of social problems.

Wedge, P. & Prosser, H. (1973)
Born to Fail? Arrow Books Ltd., Tiptree, Essex.

Weiner, I.B. and Goodenough (1977)
A move toward a psychology of conversation. In Freedle (Ed.) 1977.

Wells, G. (1976)
What makes for successful language development? Paper presented at Psychology of Language Conference, Stirling (June).

Wiggins, M.E. (1976)
The cognitive deficit-difference controversy: a black sociopolitical perspective. In Harrison & Trabasso (Eds.)

Williams, F. & Naremore, R.C. (1969)
On the functional analysis of social class differences in modes of speech. Speech Monographs, Vol.36, 77-102.

Winer, B.J. (1971)
Statistical principles in experimental design (2nd Edn.) McGraw-Hill, Kogakusha Ltd., Tokyo.

Winnubst, J. (1974)
Perspective of time: overview, critique, and bibliography. Nederlands Tijdschrift voor de Psychologie en haar Grensgebieden, 28 (8), 581-617.

Yekovich, F.R. & Walker, C.H. (1978)
Identifying and using referents in sentence comprehension. Journal of verbal learning and verbal behaviour, 17, 265-277.